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INSIDE DOPE

by GEORGE F. TAUBENECK

Blotting It Up
Incentives for Brainpower and Midnight Oil-Burning
What's the Point of All the Toil?
Stacking the Deck
Gresham's Law
Free Enterprise Is as Free Enterprise Does

Blotting It Up

When Franklin Roosevelt moved into the White House, the U. S. Department of State had only two economists. Now there are over 1600!

Maybe that helps explain why things get so fouled up down in Washington.

However, in defense of the "economists" (a fancy-sounding title which covers a multitude of sinners) it should be noted that trying to unravel Roosevelt's Lend-Lease business takes a lot of doing.

Experts have declared that we'll be lucky to recapture 20 cents on the dollar out of the resale of our Lend-Lease supplies remaining overseas to which we still retain title.

To the everlasting credit of the State Dept., we're trying to get that 20 cents.

The man in charge of this "blotting up of the spillage" is a former official of the firm which manufactures Scott-tissue. Appropriate choice.

Incentives for Brainpower And Midnight Oil-Burning

In the Treasury Dept. there are several hundred "economists" on the taxpayer's payroll. This also sounds like a helluva note.

But wait: the law of averages works out here, too. *Some* of them are cooking on the front calrod. For example:

A tightly-knit group of heavy thinkers in the Treasury Dept. are beginning to re-appraise the true meaning of confiscatory surtaxes on earned incomes in a new light. They are saying that these surtaxes stifle progress, because they kill initiative.

What, they ask, would happen to Labor productivity if a worker were paid $1.50 an hour for the first 20 hours of a week, 75¢ per hour for the next 10, 25¢ per hour for the next five, and so on?

Well, that's how the present income taxes affect highly capable men.

This situation has resulted in a shortage of high-powered executives who are willing to burn that midnight oil.

Why should they knock themselves out for the tax collectors?

What's the Point of All the Toil?

Too many high-positioned men, fully equipped with judgment and knowhow, are old and tired today. They have no incentive for continuing their back-breaking pace.

It would be a relief for them to turn over the mantle of authority to younger men who could display intense drive and burning ambition coupled with reasonable judgment.

But they smack up against this brick wall:

Too many of the more promising younger men are unwilling to abandon more comfortable positions to take a chance on a much more trying and difficult assignment—where the risk of failure looms large—when the greater rewards, after taxes, seem so small!

There are many pleasures in life which money can't buy. And today,

(Concluded on Page 6, Column 2)

Attention: Mr. Appliance Dealer

If You Want To Stay In Business—Write Your Senators Today!

AMAZINGLY, few appliance dealers seem to realize that an OPA policy may put them out of business this year.

Having hopefully looked forward to a prosperous resumption of appliance merchandising for so long, they simply can't make themselves believe that a government edict—which most of them have overlooked—will force them to lose money until they will have to quit the business.

Mr. Average Appliance Dealer: this means YOU.

What is this edict? It's the OPA policy of forcing all wholesalers and retailers to "absorb" price increases granted to desperately needy manufacturers.

It is the OPA's belief that there is some "water" in distribution costs. This "water" is supposed to "absorb" admittedly higher manufacturing costs, so that retail prices to consumers won't have to go up.

With regard to the refrigerator dealer, two fallacies in this unproved theory appear at once:

(1) Any "water" in refrigeration distribution was more than squeezed out in 1940, when a sharp competitive fight between manufacturers reduced retail prices almost 30%—thus cutting distributor-dealer grosses.

(2) All costs of all businesses have risen steeply since 1941—especially labor costs—which represent at least two-thirds of the average appliance dealer's expenses.

Already wrung out dry as to "margins" (the percentage of sales price out of which he pays his expenses and tries to make a living) the refrigerator dealer is now expected to pay out a lot more money for his "help" and his supplies and still receive the same discounts *or less.*

By looking at the new refrigerator price order, it is evident that the manufacturers fought a pretty good battle for their dealers. Unlike practically all other similar orders, the dealer is not being asked to absorb the *dollar* increase, but can pass it on to customers.

Percentage-wise, though, the dealer still suffers. His mark-up now drops 1½ to 2% on this "pass through." Furthermore, his gross dollar intake, on $1,000 worth of business, is reduced by around 6%. This is in addition to two previous percentage shavings: In 1941, when he had to "pass" the added excise tax without markup; and again in 1945 when he and the distributor had to accommodate an OPA-dictated "roll-back" of 3%.

It's Tough on the Small Businessman

Down and down he goes. Where it will end, nobody knows.

Here's a point: Before the war, dealers could enjoy substantial savings by ordering in carload lots. Today, because production is still relatively low, he must order LCL.

There is a second discouraging factor—another government "across the boards edict."

That is OPA's insistence that manufacturers produce in 1946 the same quantity of models (percentage-wise) that they did in 1941. Crazy part about this order is that 1946 customers don't want the same models they did in 1941. Eager as they are to buy refrigerators, they now demand larger sizes.

In 1941 the stripped-down 7 cu. ft. model was the big seller. Today few customers want it. Refrigeration needs have increased in the meantime. In this day and age, prospects want larger refrigerators. And they tell dealers that they'll wait until they can get them before they plunk out their money.

So manufacturer, distributor, and dealer are being forced to sell low-gross models which the public doesn't want.

Whether by design or by accident, OPA's policies toward distribution outlets will inevitably force the small businessman to close up his shop and seek a job in a factory or in a coal mine.

At the present time there are probably more than 30,000 appliance dealers in the United States. Of this number, approximately 10% (3,000) get half of the total business.

These 3,000 dealers are concentrated in cities having more than 100,000 population. Most of them sell other items—everything from garden rakes and hoes to dry goods and automobiles.

So, if they don't make money on a popular item like refrigerators, they can recoup their losses on other items which are sold incidentally to the "traffic" which major appliances route into their stores.

Obviously, the profit statements of this "upper crust" of appliance dealers cannot be used as a sample of the profits-or-losses registered by the entire existing body of appliance dealers.

If a great many of the nation's appliance dealers are losing money today, how long do you think they will continue to stay in that distribution system?

Anybody can answer that one: not very long.

And if the great portion of the money-losers are small-city, small-town independent retailers, how long do you think that wanted refrigerators and other wife-saving home appliances will be available in those communities?

Appliance distribution soon will be limited to the biggest cities if the pattern-of-opportunity for small businessmen isn't altered—and fast! There just won't be any small businessmen, if it isn't.

How Dealers' Costs Have Leaped

Faced with the glum prospect of trying to do business on much smaller margins, specialty dealers are also confronted with the hair-graying necessity of paying inflationary costs.

Take salaries, for instance. Since 1941 (OPA's "base year") salaries and wages have risen at least 35%. Unless an employer pays that much more for clerical help, he can't retain or hire that help.

Take rents. If he's lucky, the appliance dealer won't have to negotiate his lease-renewal this year. If he's unlucky, he'll find that rental charges for commercial properties have gone up from 100 to 300%. What's he to do? He has to have a roof over his head, and a showroom, doesn't he?

Take outside costs. Traveling expenses are up 25% (without accounting for "black market" bribes). And office supplies and furniture cost at least 30% more than they did prewar.

Take salesmen's compensation. During the prewar situation when millions of men were walking the streets looking for work, appliance salesmen were easily obtained on a straight-commission basis.

That situation certainly isn't being repeated nowadays. Few salesmen will go to work for you unless you can supply a wage-plus-guarantee arrangement. And that ups the costs of selling—plenty!

Take sales training. Before the war, most distributors and dealers had to train only the replacements for normal turnover amongst their salesmen. Today they have to start from scratch, and teach an entirely new sales force what they need to know to do a good job.

Take reconversion. Manufacturers have been expending astronomical sums to reconvert their plants from production of aircraft, for example, back to production of refrigerators. But it is often conveniently overlooked that appliance dealers have been reconverting their facilities, too.

In anticipation of good business, they have remodeled their stores, enlarged their organizations, and rehired all the Returning Veterans who choose to re-enter their employ.

(Concluded on Page 4, Column 3)

Mfrs. Given 8% Boost In Price Of Refrigerators

Only Dollar-and-Cents Increase Passed on, So Dealer Margin Is Cut

WASHINGTON, D. C., April 18—OPA today granted manufacturers an 8% increase in their prices of new household mechanical refrigerators.

This will result in a 4% increase in the retail price ceilings on new refrigerators, the agency said, because the increase in manufacturers' prices is being passed on through the various distribution channels on a dollar-and-cents basis only.

The increase is on the manufacturer's base price to distributors (before advertising allowances, excise tax, etc.). This results in a decrease of somewhere from 1.3 to 2% in the dealer's margin of profit, depending upon the individual manufacturer's price and discount structure.

The OPA in making the announcement stated that the increase "reflects all labor and material cost increases allowable under the new wage-price policy." It is not quite clear, however, whether this includes any possible increase under the new blanket approval for price increases based on wage increases just granted the electrical and refrigeration fields *(see story on page 4).*

Price Bill Changes Would Assure Profit Margins

WASHINGTON, D. C., April 18—The House of Representatives today passed the bill extending the Price Control Act and the OPA, but loaded it down with amendments aimed at guaranteeing a fair profit for the manufacturer, distributor, and retailer.

The bill now goes to the Senate, where proponents of strict price control are expected to make a last-ditch fight on these amendments:

1. The Wolcott "profit guarantee" amendment, which would prohibit OPA from putting a ceiling on any individual item below cost-plus-reasonable profit.

2. The Gossett amendment, which would set the period between July 1, 1940 and June 30, 1941 as "par" for production for an industry, and provide that ceilings be lifted automatically whenever production for the preceding 12-month period reached a comparable figure.

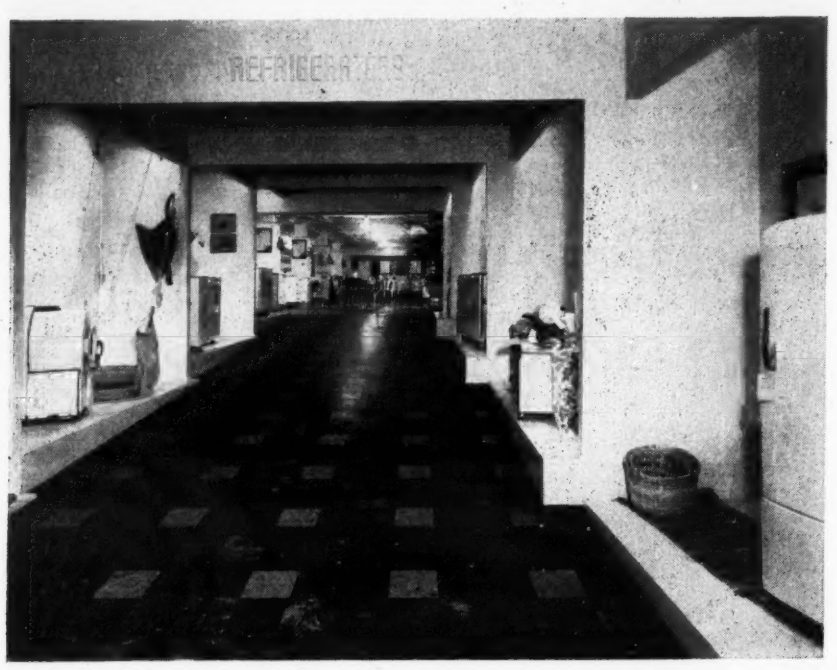
3. The Crawford amendment, prohibiting any "cost-absorption" in wholesalers discounts or markups on consumer durable goods. This means that OPA cannot force those engaged in the distribution of a product from absorbing price increases granted to manufacturers.

Parts Shortage To Close Philco's Radio Plant

PHILADELPHIA — Philco Corp. will close its Philadelphia home radio assembly plants from April 22 to May 6 because of critical shortages of parts, President John Ballantyne declared April 18.

The Philco president said that the material situation in the company's refrigerator division "had improved considerably in the last 10 days" and that production was going ahead at a steady rate.

Dept. Store Lures Traffic to Appliance Dept. With Miniature Stages to Spotlight Displays



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LOS ANGELES—Outstanding display feature of the new home appliance department at Bullock's department store here is a "miniature stage" ramp, which leads from the housewares floor up into the appliance department.

As pictured, on each side of the rising aisle there are three large inset bays, each of which is set up to display a single theme.

One such bay epitomizes the automatic washer, with "props" consisting of a laundry hamper, clothes basket, clotheslines and actual wet wash. The next features ranges in connection with handy work surfaces, kitchen cabinets, and stools.

The first two bays are usually devoted to refrigerators, stocked with food, etc., for "live" interest.

The last two bays are miniature kitchens for apartment houses or bungalows, displaying tiny ranges, small size refrigerators, sinks, and cabinets.

Wholesale Range Prices Set for Westinghouse

MANSFIELD, Ohio — Maximum wholesale prices for three models of Westinghouse Electric Corp.'s electric ranges on sales to two types of retail dealers have been established by OPA in Amendment 1 to Order 255, MPR 64.

The agency set the following ceilings for sales to "the class of retail dealers to whom the wholesale distributor customarily sold at his highest price." They include the federal excise tax.

Model	
B-64-46	$161.26
D-64-46	106.32
E-64-46	83.93

On sales to other classes of retail dealers, the distributor is directed to determine his ceilings "by applying to the above ceiling prices his customary discounts, allowances, and other price differentials in effect on sales to the particular class of dealer."

If a wholesale distributor, at the request of a dealer, provides the consumer with delivery, installation, and any service necessary in connection with the sale of a range, OPA ruled that he "may make an additional charge per range (which must be separately stated) no greater than the differential he had in effect during March, 1942, for similar sale on a similar basis."

If a distributor had no such differential, he is permitted to make a charge "no greater than the differential charged for such servicing by his closest seller of the same class who had such a differential."

30 Days

Dealer Limits Customer Priorities to One Month's Shipment of Appliances

MASSENA, N. Y. — An unusual system for giving priorities on new home appliances which does away with the usual headaches and ill-will involved has been developed by Kaplan's here.

"An accumulation of priority registration always leads to grief," Sol Kaplan, head of the store, pointed out. "And ties us up to the point that we can't talk to any new customers or make any promises. Therefore, instead of merely adding name after name to the list and letting them grow in a file, we have set up this system so that priorities are good only for 30 days."

The system, which has proven highly satisfactory from every standpoint, is titled "Appliances of the Month." By newspaper advertisements and personal contacts, Kaplan's invites anxious home appliance buyers to come into the store between the first and fifth of each month, when the store will be glad to give them a priority on that month's receipts of new appliances.

The customer fills out a card on which he lists the three, appliances, in the order of preference, which he actually is willing to buy that month. In return for the visit, Kaplan's guarantees to make every effort to deliver at least one of the three during the 30 days following, when the system will begin all over again.

At the end of each month, all cards in the priority file are destroyed, and have no further bearing on appliance stocks received. If the customer wants to reinstate his priority, he must come in again and fill out a new card—whether he has received any of the appliances desired or not. This, of course, makes it possible for the applicant for a refrigerator, range, etc., to change his plans from month to month according to circumstances.

If the customer gets a new refrigerator elsewhere, for example, it means that Kaplan's does not carry a useless priority listing on its books for more than 30 days all told.

The "Appliances of the Month" plan is described fully in Kaplan's newspaper advertising, and by radio. Response to the idea has been far greater than would be possible with the old accumulative registration policy, Mr. Kaplan stated.

G-E & Hotpoint Range Prices Changed to Aid Servicing Dealers

WASHINGTON, D. C. — OPA orders fixing maximum wholesale prices of General Electric Co. and Edison General Electric Appliance Co. (Hotpoint) electric ranges were recently amended to allow price differentials for sales to servicing and to non-servicing retail dealers.

As originally issued, the orders made no distinction between the two types of retailers. Under the amendments, the ceilings previously announced for "dealers" now apply only to servicing retail dealers.

On sales to a non-servicing retail dealer, the agency authorized a wholesale distributor to add to the servicing-dealer ceilings "the same differential which he had in effect during March, 1942" between the two. If a distributor was not then in business, OPA directed such a person to "apply the differential which his closest competitor had in effect during that time."

A servicing retail dealer, OPA said, is one "who delivers the range to the ultimate consumer, and provides all necessary services, in connection with delivery, installation, and the furnishing of a one-year warranty."

The agency defined a non-servicing dealer as one "who sells a range, delivery of which is made directly to the ultimate consumer by the wholesale distributor, the latter providing all necessary services in connection with delivery, installation, and the furnishing of a one-year warranty."

These changes was authorized by Amendment 2 to Order 196, MPR 64, pertaining to Hotpoint models, and Amendment 2 to Order 198, MPR 64, affecting G-E ranges.

Following are the maximum prices previously established for sales by wholesale distributors to all dealers and now in effect on sales to servicing retail dealers:

EDISON GENERAL ELECTRIC APPLIANCE CO., INC.

Model	In quantities of 1 to 4 Each	In quantities of 5 or more Each
RB 8	$ 72.64	$ 67.92
RB 15	79.89	75.81
RB 17	121.32	110.02
RC 8	166.87	151.34

GENERAL ELECTRIC CO.

Model	In quantities of 1 to 4 Each	In quantities of 5 or more Each
AP146A8	$ 72.62	$ 67.87
CT146A9	79.99	75.87
CD346A9	121.26	109.91
DD246A9	177.26	160.68

Ceilings for the ranges are f.o.b. the seller's city, except that when shipment is made directly from the factory to the retail dealer, pursuant to the wholesale distributor's order, they are f.o.b. the retail dealer's city. The federal excise tax is included.

2 Electromaster Range Model Prices Increased

DETROIT — Wholesale and retail ceiling prices for two models of electric cooking ranges manufactured by Electromaster, Inc., here were recently adjusted by OPA in an order authorizing the firm to increase its highest prices during October, 1941, by 10.1%.

The new ceilings, established by Order 114 under Revised Supplementary Order 119, supersede those fixed by Order 197, MPR 64.

Following are the current maximum retail prices:

Model	Zone 1 Each	Zone 2 Each	Zone 3 Each	Zone 4 Each
15-1	$178.75	$181.95	$184.75	$187.95
T-41-1	118.50	120.95	121.95	123.75

Included in these ceilings are the Federal excise tax, delivery, a one-year warranty, and installation (when it requires only connection to electric facilities). Addition of $3.50 is permitted when a range cord set is required and furnished.

Ceilings for sales by wholesale distributors to retail dealers were set as follows:

Model & Quantity	Zone 1 Each	Zone 2 Each	Zone 3 Each	Zone 4 Each
15-1				
1 to 4	$119.56	$121.59	$123.31	$125.34
5 or more	115.62	117.57	119.21	121.17
T-41-1				
1 to 4	78.77	79.86	80.96	82.02
5 or more	76.12	77.32	78.22	79.26

The Federal excise tax is included in these prices.

Freezer Prices

Eskimo Kooler Corp.

CHICAGO — Eskimo Kooler Corp. here has been given OPA ceiling prices for six models of its farm and home freezers ranging from 3 to 25 cu. ft. in capacities.

Following is the price schedule set by Order 409, MPR 591:

	On sales to— Distributors	Dealers	Consumers
3 cu. ft. ⅙ hp. condensing unit	$164	$197	$326
8 cu. ft. ¼ hp. condensing unit	206	247	412
12 cu. ft. ⅓ hp. condensing unit	264	317	528
16 cu. ft. ⅓ hp. condensing unit	302	362	604
18 cu. ft. ⅓ hp. condensing unit	329	394	658
25 cu. ft. ½ hp. condensing unit	412	450	824

Magic Freezer Co.

RICHMOND, Va. — Manufactured by Magic Freezer Co. here, a 17-cu. ft. home freezer will retail for $524 under the provisions of Order 407, recently issued by OPA under MPR 591.

The order also established these other ceilings: to distributors, $262; to dealers, $314.

Condensing unit capacity for the unit, Model No. 17, is given as ½ hp.

Why FREEZ-ALL leads
MODEL 160
16 cu. ft. drawer type Freez-All with 6 large storage drawers and 2 large sharp freezing bins.
MODEL 60
6 cu. ft. chest type freezer definitely has a place in modern living needs.
Customers can quickly see more advantages, therefore, less actual selling is needed. When the easily operated storage drawers and the large sharp freeze compartment is presented — sales barriers crumble. The tremendous customer approval of the Freez-All 8 cu. ft. model makes us confident that the way is clear to volume selling.
FREEZ-ALL
REFRIGERATION DIVISION
PORTABLE ELEVATOR MFG. CO.
BLOOMINGTON, ILLINOIS
DEPT. 55
The Original Drawer Type Freezer

The man who knows . . . sells!

Kelvinator's great Vocation-in-Sales Training Program is not only completely new . . . but completely retail-minded . . . and there's no better proof of that than the material used in Kelvinator's course of instruction for retail appliance salesmen.

Kelvinator's textbook, "*Your Way to Success in Appliance Selling*," is an example.

Available soon to all Kelvinator dealers and Kelvinator retail salesmen . . . it discusses the products not in terms of mechanical nuts and bolts but in terms of what the products *are* and *what they will do for the buyer!* Here is a true retail-minded . . . *sales*-minded . . . approach to the problems of appliance selling, typical of Kelvinator's *whole* V.I.S. Program, from its initial guidance for dealers in selecting the *right* salesmen to its continued guidance for salesmen in the *right* ways to make *sales*.

This is another important Kelvinator contribution to retail sales training and selling techniques—a contribution every Kelvinator dealer receives as an integral part of his Kelvinator Franchise. Just as he receives the entire V.I.S. Program . . . just as he receives all the other benefits of Kelvinator's over-all Retail-Minded Policy which make the Kelvinator Franchise . . .

The most Valuable Franchise in the Appliance Industry

LOOK AHEAD WITH

Wednesday Nights, 10:30 Eastern Standard Time. Kelvinator's New Musical Hit—David Rose and his Orchestra, with Curt Massey, CBS, All Stations.

RETAIL-MINDED

Kelvinator

DIVISION OF NASH-KELVINATOR CORPORATION

Kenosha • Milwaukee • DETROIT • Grand Rapids • Lansing

Wage Board Approves Price Increases For Industry Based on Wage Boosts To 18½¢

WASHINGTON, D. C.—The National Wage Stabilization Board on April 12 gave blanket approval for pricing purposes of wage increases up to 18½ cents an hour over wartime rates in the electrical industry.

This means that companies manufacturing electrical equipment can seek price increases to the full extent of the increased labor cost.

Apparently all segments of the household refrigerator, commercial refrigeration, air conditioning, and major appliance fields are covered by the ruling. It was stated specifically that the following are covered:

"Radios, radio tubes, phonographs, telephone and telegraph equipment, and electric signalling apparatus; electric refrigerators and refrigeration machinery, including compressors, evaporators, condensers, and related devices; complete electrical air conditioning units; household electrical appliances, including heating, cooking, cooling, cleaning, and laundry equipment."

The board explained that automatic approval of price increases based on increased labor costs is "limited to plants where the wartime general wage rate increases were within the range of 13 to 18 cents an hour and were in line with those in plants in which increases up to 18½ cents have already been found approvable."

Companies may not seek price relief on the basis of such wage adjustments, however, until the higher wages actually have been put into effect.

Iron Fireman To Reduce Prices on Home Stoker

CLEVELAND—At its first international sales convention since 1941, Iron Fireman Mfg. Co. announced to more than 1,000 American and Canadian dealers a 15% price decrease on its residential bituminous coal stoker and introduction of several new products intended to make the Iron Fireman heating service complete.

C. I. Burg, vice president in charge of sales, described the price cut as a deliberate "gamble," but predicted that "We will win if increased sales permit the mass production which will justify the price reduction."

New products announced by President T. H. Banfield include: three new types of oil burners—one industrial and two domestic, a new line of self-firing furnaces and boilers, an improved bituminous ash remover stoker unit, and a new universal joint assembly.

A complete line of furnaces and boilers, including oil and automatic coal firing and standard hand firing units, will be manufactured in addition to the new products.

Iron Fireman's entrance into the domestic oil burner field is marked by introduction of two models, the "vortex" and the M-2, displayed at the convention for the first time.

Attention: Mr. Appliance Dealer

(Concluded from Page 1, Column 3)

Take servicing. Refrigerator repairmen are now being paid much higher hourly rates. And so the costs of servicing refrigerators (during their inordinately long guarantee periods) have shot upward from 150 to 400%.

Add these "takes" all together, and any child will arrive at a simple answer: The average dealer must take in more money or go broke.

Because distributive costs have leaped upward, both gross dollar margins and distribution percentages must be elevated.

Everything from automobiles to shirts and underwear sells at a much higher price to the consumer today than in 1939. But refrigerators retail for less money now than they did in 1939. No customer can possibly kick about paying, say, $10 more per box. (As a matter of fact, it is said that they're paying that much and more in "tips" to buying "agents.")

This is an infinitesimal amount in any family's budget—compared to food costs, for example, which have risen so sharply.

It won't do the consumer any good for the OPA to hold refrigerator prices and margins down to unrealistic levels if thousands of dealers go out of business—because then there won't be many places the desperate family can find refrigerators for sale.

There's only one thing which YOU, Mr. Dealer, can do about this. Congress is on the verge of extending the life of the OPA. Amendments to the OPA renewal Act have been passed by the House which would prevent the price-fixers from forcing dealers to absorb higher manufacturing costs. Those amendments will not be accepted by the Senate unless sufficient pressure is brought to bear on individual Senators by the voters out in the land.

You, your employes, members of your family, and your friends all represent votes. You want to stay in business, don't you? You want to make a profit, don't you? Well, then get everyone you know to send a barrage of letters and telegrams to your Senators. Quote anything you like from this editorial—or clip it and mail it in.

Manufacturers have done all they can. They don't command many votes. You dealers do. And the whole thing is mixed up in politics. If you hurry, you can do plenty to turn the tide.

GEORGE F. TAUBENECK

Westinghouse Resumes Strike Negotiations

PITTSBURGH — Westinghouse Electric Corp. has resumed negotiations with the C.I.O. electrical workers union in an effort to find a solution that would end the three-months' old strike.

Some observers believed that the automatic approval for price increases based on increased labor costs just granted to the electrical industry might bring about an agreement.

The company announced last week a 17½ cent increase for "white collar" workers not affiliated with any union.

Additions and Corrections In Table of Prices For Household Mechanical Refrigerators

(These price changes do not reflect the 8% increase just granted to manufacturers of household mechanical refrigerators.)

WASHINGTON, D. C.—In two recent amendments to MPR 598, OPA announced additions, corrections, and deletions in its table of retail ceiling prices for 1946 models of Coolerator, Frigidaire, Norge, Servel, Westinghouse, and Bullock household refrigerators.

National ceilings for three models manufactured by The Coolerator Co. were added to the table by Amendment 7, as follows:

Make	Brand	1946 Model No.	First Zone
The Coolerator Co.	Coolerator*	DR-85	†$239.95
		R-75-S	247.95
		R-75	299.95

*An additional charge of $4.75 may be made for refrigerators equipped with a left hand door.

†Zone 1 includes the 48 States and Washington, D. C.

Amendment 8 made these changes:

1. Deleted second zone ceilings for all Frigidaire models, due to discontinuance of factory owned branch operations earlier this year.

2. Added five zone prices for Norge model N-466.

3. Added four zone prices for Servel model R-803A and Westinghouse model AS-7-46.

4. Added a national price for Bullock's "Snow Cap" model A-763-5.

Corrected the listing of Servel and Westinghouse firm names and the Servel brand name. Servel, Inc. formerly was listed as Servel Corp, its brand name as "Electrolux," and Westinghouse Electric Corp. as Westinghouse Electric & Mfg. Co.

Four New Zone Prices Set For Norge Model N-466

Make	Brand	1946 model No.	First zone	Second zone	Third zone	Fourth zone	Fifth zone
Borg-Warner Corp.	Norge	N-466	†$140.75	†$143.75	†$145.75	†$145.75	†$149.75

Changes and Additions To Refrigerator Prices

Following are the makes and models added to OPA's table of retail ceiling prices by Amendment 8:

Make	Brand	1946 model No.		First zone	Second zone	Third zone	Fourth zone
Bullock's	"Bullock's Snow Cap"	A-763-5		$157.95	.....	.....	.....
Servel, Inc.	Servel	R-400		149.95	$153.45	$155.95	$156.45
		R-600A		192.95	196.45	198.95	199.45
		R-600		274.95	278.45	280.95	281.45
		R-800A		269.95	273.45	275.95	276.45
		R-800		324.95	328.45	330.95	331.45
		N-803		284.95	287.95	290.45	291.95
		N-803		334.95	337.95	340.45	341.95
		R-803A		334.95	337.95	340.45	341.95
Westinghouse Electric Corp.	Westinghouse	B-7-46	* ‡	179.95	.....	.....	.....
		AS-7-46	* ‡	164.95	.....	.....	.....

*Zone 1 includes the 48 States and the District of Columbia.

†These prices are subject to an additional charge of $25 if at the request of the purchaser the refrigerator is sold equipped with an open type unit. Models so equipped do not include a storage bin. These prices are also subject to an additional charge of $2.50 for a refrigerator equipped with a left-hand door.

‡These prices are subject to an additional charge of $5 for a refrigerator equipped with a left-hand door.

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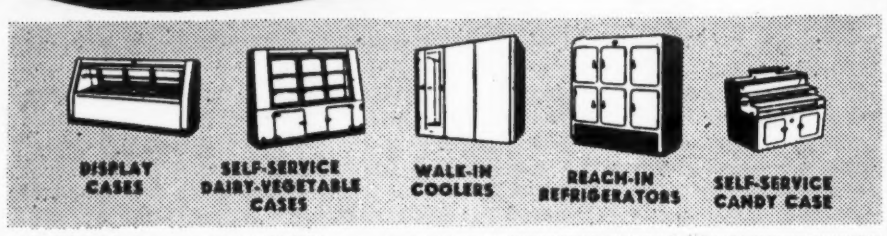
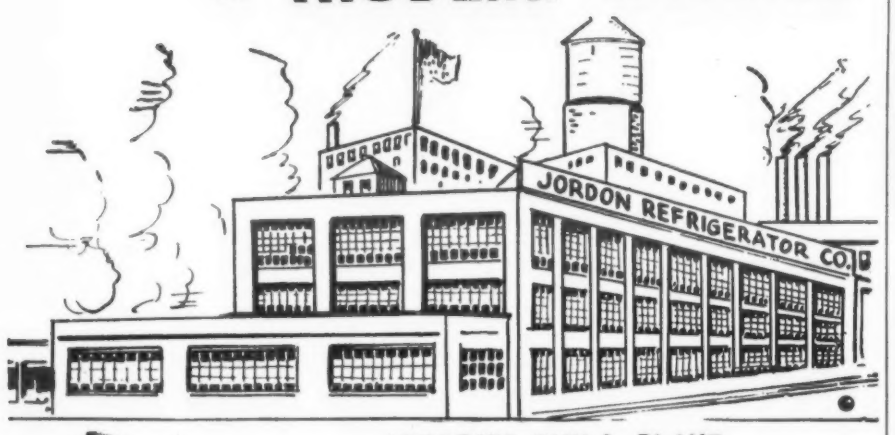


A FOR OF MODERN PLANT MANUFACTURE REFRIGERATION



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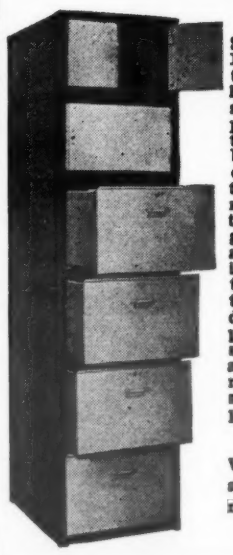

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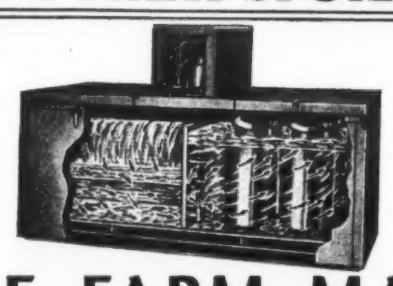

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Ask your ALCO Jobber to show you *now* how the THERMO-LIMIT Valve will improve performance—save you time and trouble.

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ELECTRICAL AND AUTOMOTIVE PRODUCTS

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

plenty of talented young men are saying:

"What the hell—I'll take it easy and live longer. Why work overtime when taxes eat up that extra dough? Me for more golf, fishing, reading, having a good time, and taking it easy at home. What does hard work get you these days?"

That government-fostered attitude, we submit, is the beginning of the Decline of America.

Maybe Oswald Spengler knew what he was talking about when he wrote that obscure two-volume prophetic tome, "The Decline of the West."

Stacking the Deck

Even though the People arose in righteous indignation when the sanctified F. D. Roosevelt sought to "pack the Supreme Court" by adding several judges who would be subservient to him, he succeeded in "packing" it anyway.

He remained in office so long that he was able to name six new Justices—more than a majority.

Thus he "stacked the cards" to produce the Supreme Court's new trend-of-thought, to wit:

"Labor unions can do no wrong."

That attitude is obviously a travesty on the concept of Supreme Justice. No single pressure-group "can do no wrong."

Most flagrant example yet of the FDR-packed Supreme Court's incredible decisions is that of May Department Stores vs. National Labor Relations Board.

In this case, 40 employes—out of a total of 5,000 employed by a St. Louis department store—joined a CIO union. Naturally, the store executives refused to grant this piddling group the right to bargain exclusively for the entire 5,000.

On its own initiative, the store raised all employe's wages.

So, what happened? The tiny minority of 40 petitioned the NLRB to the effect that this pay-raise was an "unfair labor practice."

Believe it or not, the NLRB upheld the petition, stating that the boosting of wages "had the effect of depriving the union of credit which normally would accrue to it and of nullifying its efficacy as a bargaining agent."

So help us, Roosevelt's Supreme Court affirmed this opinion!

The trouble with this country is that too many of its affairs are being run by young men who are in a hurry, or old men who are in a panic.

Truly we can say:

"Justice" is dictated by noisily militant minorities!

Gresham's Law

Federal legislation (as exemplified in the Wagner Act) actually has encouraged union chiefs to threaten, to coerce, and to flaunt both the law and public opinion.

The gangster-type of Labor official thereupon obtains an advantage over the union executive who has a conscience.

Thus Gresham's economic law ("bad money drives out good money") is now working out too well in the labor field in this guise:

Irresponsible union execs drive out sane labor leaders.

In self-defense, the more responsible unions now feel that they must resort to honestly indefensible measures and tactics, in order to keep their jobs.

Because Roosevelt-sponsored federal legislation gives union officials freedom from injunctions—plus special immunities which make it all-too-easy for them to get what they want, by fair means or foul—the nation's only hope of attaining future industrial peace is this: we must *alter* the Wagner Act, so as to place a measure of *responsibility* on the unions which will match their present *powers*.

Free Enterprise Is as Free Enterprise Does

How can you argue about the merits of the Free Enterprise System, without making an ass of yourself, when you engage in conversation with donkey-minded, unstudious, sadly-informed arguflers?

These latter can make you feel quite uncomfortable with their pat citations of slogans, party-line formulae, and historical examples.

Our Laws-of-Inheritance have made clowns Presidents and Kings, haven't they? Tommy Manville, Barbara Hutton, and Gloria Stokowski are undeserving parasites on the Body Politic, aren't they?

And our emphasis on the rights of private property have made the Free Enterprise system somewhat obnoxious to many, many property-less voters. Right?

Couldn't these Unpossessing Folk better their positions by a wholesale reshuffling of saved-up assets?

To be sure they could—temporarily. But what then? Who would work and save up the money for the "reshufflers" to steal next time?

Well, no fact respecter can argue about this proved-by-history thesis: The Free Enterprise System makes all men more nearly equal than any other politico-economic scheme ever has.

And it encourages all its adherents to *throw out* into the ring all their energies and their best efforts in the hope (and belief) that they'll be rewarded exceptionally for hard work and difficult thinking and their sacrifice of pleasures—when they "toil upward into the night."

If you ponder upon the historical validity of those old copy-book ideas of self-reliance, ingenuity, inventiveness, willingness to work, honesty, and thrift, you are honor-bound to agree that the Free Enterprise System affords the greatest opportunity for achievement by derring-do to the least-likely amongst us.

That has been proved over and over again in the United States.

What's wrong with the Achievement System, then?

Mfrs. Suggest Method of Dropping OPA Controls

CLEVELAND—A new criterion for determining when to remove price controls from consumer durable goods has been proposed by the Vacuum Cleaner Manufacturers Association, which met here recently.

Under the proposal, price controls would be dropped when production figures for a particular item exceeded for two successive months the monthly average production rates recorded in 1941.

"It is impossible for suppliers to produce parts and materials at their present production costs and at present ceiling prices," declared the association's national affairs committee, headed by Thomas F. Kelly, in making the price proposal. "Similar price relief is fully as essential in the retail of both vacuum cleaners and repair parts."

Manufacturers at the meeting declared production to meet a backlog estimated at 4,000,000 units would be tripled if present handicaps were completely removed.

"We are manufacturing at only a fraction of today's demand and we cannot get going on production to serve this anticipated immense market until the OPA's burdensome handicaps to full production are removed," asserted the association.

"The situation is alarming to homemakers, manufacturers, and labor alike. We see our plants operating at a fraction of demand while the OPA refuses to grant us our direly needed price adjustments."

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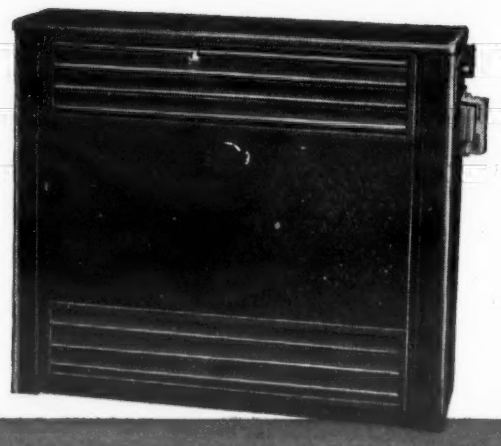
Comfortaire Conditioner

Patents Pending



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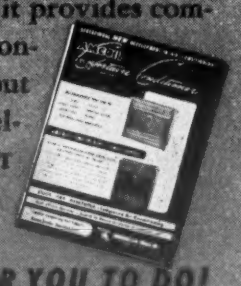

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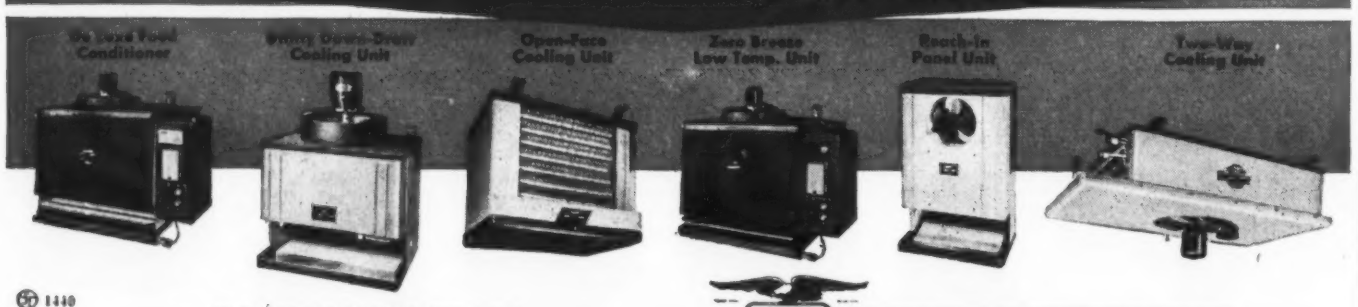

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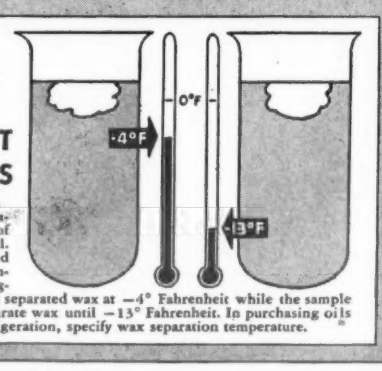
CONTINUING REPORT ON:

WAX SEPARATION FACTS

SAME OIL *but* DIFFERENT SHIPMENTS



An example of wax separation in two samples of presumably the same oil. Both tests were prepared with a 10 per cent concentration of oil in the refrigerant. Sample on the left separated wax at —4° Fahrenheit while the sample on the right did not separate wax until —13° Fahrenheit. In purchasing oils for low temperature refrigeration, specify wax separation temperature.

by the Ansul Wax-Oil Separation Method

● The temperature at which wax separates from an oil in oil-refrigerant mixture is influenced by three determining factors:

1. The *nature* of wax in the oil.
2. The *amount* of wax in the oil.
3. The *amount of oil* in the oil-refrigerant mixture.

Different oils possess different wax separation characteristics.

The nature and amount of wax content varies in different oils and may even vary in different samples of supposedly the same oil taken from different shipments.

These inconsistencies confuse the engineer in his efforts to select or recommend suitable lubrication for low temperature refrigerating systems and, to alleviate this condition, Ansul Chemical Co. is ready and anxious, at all times, to co-operate with refrigeration engineers and refrigeration service engineers.

REMEDIES

To eliminate wax trouble in expansion valves and coils:

1. Use an oil which separates little or no wax from its mixture with the refrigerant at the operating temperature of the valve.
2. Install an oil trap to cut down the amount of oil (and consequent wax) circulating with the refrigerant.

SEND FOR THIS BULLETIN

An informative reprint, "*The Separation of Wax from Oil-Refrigerant Mixtures*," will be sent on request. No obligation. Just address . . .

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ANSUL JOBBERS are ready and equipped to render an intelligent, co-operative service to refrigeration engineers and maintenance men on problems which arise from time-to-time in the operation of refrigerating systems.

FOR EXAMPLE:

Samples of ice machine oils, submitted by users of Ansul Refrigerants to Ansul Jobbers, are tested by Ansul laboratories without charge by the Ansul Standard Wax-Oil Separation Method. This approved method, developed and standardized especially for use in connection with oils used in refrigerating systems, provides an accurate determination of the amount of wax which separates from an oil at low temperatures.

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REFRIGERATION DIVISION, MARINETTE, WISCONSIN
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Engineers Urged To Bring Down Costs Of Production To Combat Price Ceilings

DETROIT — "Refrigeration engineers might be able to redesign some of our present equipment to maintain or lower production costs in these days when prices are rising all along the line except at the retail level," suggested Al Chadburn, assistant national secretary of the American Society of Refrigerating Engineers, who addressed the Detroit section recently.

In addition to discussing Mr. Chadburn's general talk on present-day problems and trends, the section also elected officers for the coming year and conducted an open forum session devoted chiefly to price questions and refrigeration controls for low temperature systems, particularly home freezers.

By a unanimous vote George H. Poggen, Jr., was elected chairman of the section; Dan J. Mull, vice chairman; and Frank Y. Carter, secretary-treasurer.

Expanding his suggestion that engineers might help combat increasing costs, Mr. Chadburn pointed out that processing of the porcelain enamel liner for a refrigerator requires two steps—the application of a base coat, and then the finish coat of enamel.

"Recently a one-coat process has been developed. It might be well for engineers to check into this process to determine if it could be used.

"Most refrigerant tubing, for example, has a wall thickness of .035 in. Maybe this started by accident, but regardless, tubing with an .035 in. wall does seem to be more or less standard today. It seems to me that if we need .035 in. wall thickness for ½ in. o.d. tubing, we don't need the same wall thickness for ¼ in. tubing. We might try using ¼ in. tubing made of .025 in. stock, for example, which, since tubing is priced by the pound, should give us more tubing per pound."

Mr. Chadburn also pointed out that there may someday be a radical change in electric motors. There is a possibility, he declared, that 600 cycle current might supplant the present 60 cycle current in the future. Engineers who are experimenting with the 600 cycle current say that its adoption would permit a sharp reduction in the size and weight of an electric motor capable of producing the horsepower as a 60 cycle model.

The 600 cycle motor would run at high speed—5,800 r.p.m.—and would be direct-connected, thus requiring a change in compressor design, according to Mr. Chadburn.

"Another important task confronting the refrigeration industry is that of doing a much better job of telling its story, not only to the public, but to the industry's suppliers," he declared.

"Outside people have little if any knowledge of how important and vast the refrigeration industry actually is, and even suppliers to the industry appear to need education as to the tremendous market and requirements for materials involved in refrigeration."

Citing the tremendous growth already experienced in the frozen food field, and the expectations of continued expansion here, Mr. Chadburn turned to the industrial market and declared, "Some day refrigeration will be as important industrially as heating is today.

"Nearly every industrial process seems to involve heat at some stage or other, and eventually refrigeration will find a use in many more industrial applications than at present."

Wyoming Buys 8 Units For Fur Storage, Fish

CHEYENNE, Wyo.—The state of Wyoming has let a contract to the Rocky Mountain York Co. of Denver to furnish eight refrigerating units which will be used in the fish hatcheries of the state and to preserve hides and furs in storage, it is reported by Malcolm LeSueur, state purchasing officer. The units will cost $8,751.

The refrigerating units will be used to keep fish food fresh, thus enabling the state to purchase large quantities at a material saving in cost, Mr. LeSueur said, and also for storage of hides and furs by the state game and fish department. Better prices will be received from the state's hides and furs as a result of refrigerated storage, department officials say.

Installation of the units will begin this spring in the existing hatcheries at Tensleep, Daniels, Dubois, Como Bluffs, Cody, Story, near Afton, and in the rearing pond and raceway project now being constructed at Glenrock.

Textile Mills, Long Users of Process Conditioning, May Add Comfort Cooling

SYRACUSE, N. Y.—The prediction that the textile mill of tomorrow will include "comfort" air conditioning as well as controls for purely production purposes is made in a 40-page non-technical booklet on the subject just published by Carrier Corp.

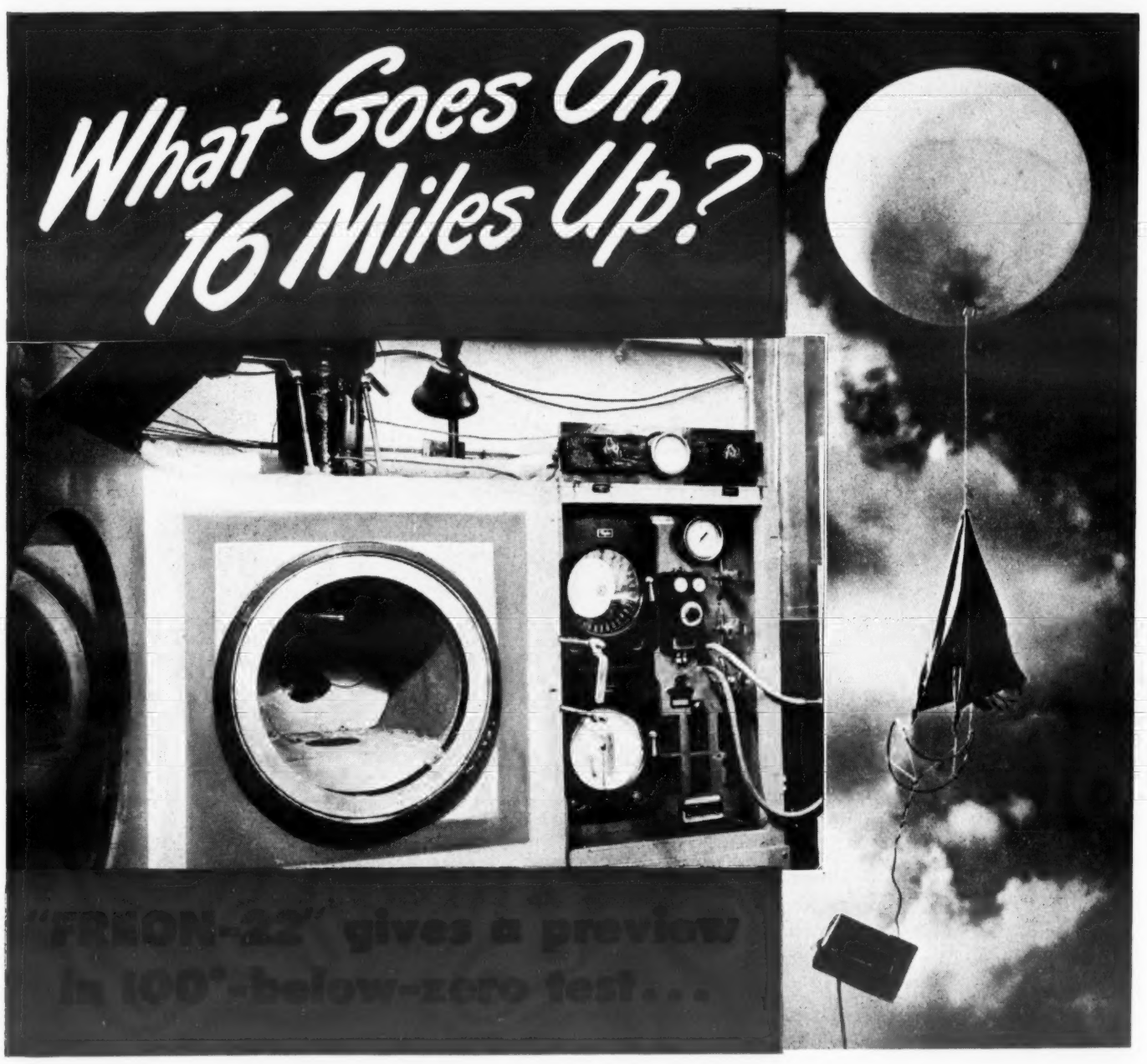
"Cooling not only benefits the worker by maintaining air conditions at which he is most comfortable and efficient, but also benefits the employer by increasing his choice of labor," the booklet asserts. Wartime experience, it is claimed, demonstrated that mills with air conditioning had waiting lists of applicants.

One of a series of 36 new Carrier catalogs, the booklet is described as "a practical gauge by which textile mill air conditioning can be operated most efficiently." Aim of the "textbook," Carrier says, is to "take the mystery out of the fundamentals to reveal the simple relationship between proper atmospheric conditions and efficient production."

The booklet is said to explain the working of the sling psychrometer by separating the wet and dry-bulb graphs on several charts simulating various weather conditions. How "outdoor" air is converted to proper indoor temperature and relative humidity is pictured in step-by-step explanations.

Six systems which can be adapted to the needs of individual textile mills are described in detail in the booklet.

In addition to comfort, other advantages cited for mill air conditioning include: uniformity in the quality of goods; reduction of soilage through elimination of airborne dirt by filters; and elimination of frequent machine adjustments to meet changes of delicate materials because of weather variations.



Weather men today base long-range forecasts on conditions existing 12 to 16 miles above the earth. An electronic device called a "Radiosonde," carried aloft by a small balloon, gets the facts. It automatically radios to ground receivers a description of climate in the stratosphere.

To test and accurately calibrate the "Radiosonde," actual conditions of the upward flight and return parachute drop are duplicated in a specially designed test chamber. During the test operation temperature is lowered from ambient to –100°F., and greater reductions are readily possible.

The test chamber is a jacketed cylinder 27" across and 30" deep, with a layer of finned coils inside. An 8-pane window allows observers to watch each test closely. Automatic controls lower—and then raise—temperatures and air pressures simultaneously to simulate the varied conditions encountered by the "Radiosonde" in action. Refrigeration is from a two-stage Frick system installed by the Paul J. Vincent Company, Baltimore.

"Freon-22," the refrigerant used, is the right one for jobs requiring extremely low temperatures. Its boiling point is minus 41.4°F at atmospheric pressure; thus the engineer is able to design and to build small, compact units of high efficiency. "Freon-22" is also non-toxic, non-flammable and non-explosive. Further, its purity and its low moisture content (only 25 parts of water in a million) reduce the possibility of corrosion. Kinetic Chemicals, Inc., Tenth and Market Sts., Wilmington 98, Delaware.

The "Radiosonde," manufactured by the Friez Instrument Division of Bendix Aviation Corp., begins a stratosphere trip.

• • •

(Above, left)—View of the test chamber where stratosphere temperatures of minus 100°F., and lower, are obtained.

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Frozen Custard Cones, Cups Boost Druggist's Trade 35% First Week

FRESNO, Calif. — Traffic to the soda fountain and in fact the entire drugstore has increased tremendously since Buker & Colson Drugs here installed a novel frozen custard service.

A space at the rear of the soda fountain has been cleared for erection of a plate glass booth 7 x 7 ft., which is trimmed with white plywood, fluorescently lighted, and convenient to all parts of the store.

Inside the booth is a Sweden "speed freezer" which can produce 20 gallons an hour of frozen custard. The stainless steel machine is operated by regular soda fountain employes.

Ernest Frech, operator of the store, reports that his soda fountain volume went up 35% the first week as customers flocked into the store to try the frozen custard, which is made in three basic flavors. Dishes and cones sell for 10 cents, served in paper cone cups which are stocked inside the plate glass enclosure.

In addition to soda fountain sales, the new installation has created a new type of customer—the office worker who runs in during the afternoon to buy from four to ten cones for office personnel. Two windows have been cut through the glass, so heavy has the latter type of sales volume become, and one is used to service the soda fountain, and the other "bulk" customers who want several cones at once.

Michigan Firm Plans to Augment Output Of Trailer Refrigerators in New Plant

Specially-Designed Units to Be in Production Within 2 Months at Marvel Trailer Parts Co.

DETROIT — Production of combination ice and electric refrigerators for trailer coaches will be greatly stepped up when Marvel Trailer Parts Co. here, operated by Carl J. Wagner, moves its refrigeration division into a new plant just completed in Sturgis, Mich.

Equipment is now being installed in the plant, which has approximately 17,000 sq. ft. of floor space. It is expected that production will be started within two months.

Features of the building will be a material and quality control laboratory and a testing room. In the latter, humidity will be controlled and a temperature of 130° F. maintained for testing the units after being run at 70 to 80°, it was stated.

Unit production volume has been set tentatively at 60 a day but this figure probably will be increased later. Current daily volume at the Detroit plant is 10 to 15 units, according to Roy Travis, plant superintendent.

Prior to the war, Marvel produced several models of the combination unit but has now dropped all but one, Model TE-54, of 3.7-cu. ft. capacity. This unit will hold a 25-lb. cake of ice.

A design is now being worked out for a new model which probably will be introduced in about six months, according to Mr. Travis. He said it would have a capacity of slightly more than 4 cu. ft. and hold 50 lbs. of ice. Removal of the whole refrigerating system for easy servicing will be possible, he explained.

Marvel plans to turn out between 3,000 and 4,000 more of the present model before starting production on the new one.

The company claims that its units were the first designed especially for the trailer industry and "are not domestic units adapted to trailer use." They were designed, it says, to provide refrigeration both when current is available and when it is not.

Cabinets for Model TE-54 are manufactured by Sanitary Refrigerator Co., of Fond Du Lac, Wis. Marvel also handles Sanitary's 75-lb. capacity ice refrigerator which it markets as Model T-25 of "The Marvel Line."

Model TE-54, it was explained, was made for elevated installation in a cabinet built into the trailer. It may be installed in the same space required by Model T-25.

Measurements of the combination unit are 40½ in. high, 23 in. wide, and 18 in. deep. Net weight is given as 158 lbs.

When used electrically, a demountable food shelf may be placed across the ice compartment. Space is provided for four ice-cube trays freezing 72 cubes.

TE-54 is equipped with a ⅛-hp. Tecumseh condensing unit. The specially designed, double-U-shaped evaporator is made by Bohn Aluminum & Brass Corp. The controls are by Ranco.

Sales of the refrigerators in the eastern section of the country are made out of the Detroit office to trailer manufacturers and trailer distributors and dealers. West Coast business is handled by Morris DeLee in Los Angeles.

Marvel has not as yet received an OPA ceiling on the unit. Prewar price was about $125.

The unit was on display at the recent Eighth National Trailer Coach show in Chicago at which more than 100 trailers were exhibited. According to a representative of Sanitary Refrigerator, the great majority of trailers were equipped with either the Sanitary ice refrigerators or Marvel combination units.

Most of the trailers had refrigerators, bottled-gas stoves and oil space heaters and some had electric dishwashers and ranges and stainless steel sinks.

The Marvel line also includes trailer couplings and lifting devices manufactured in its plant here; windows and mouldings made for the firm by Motor Products Corp., and several other trailer parts.

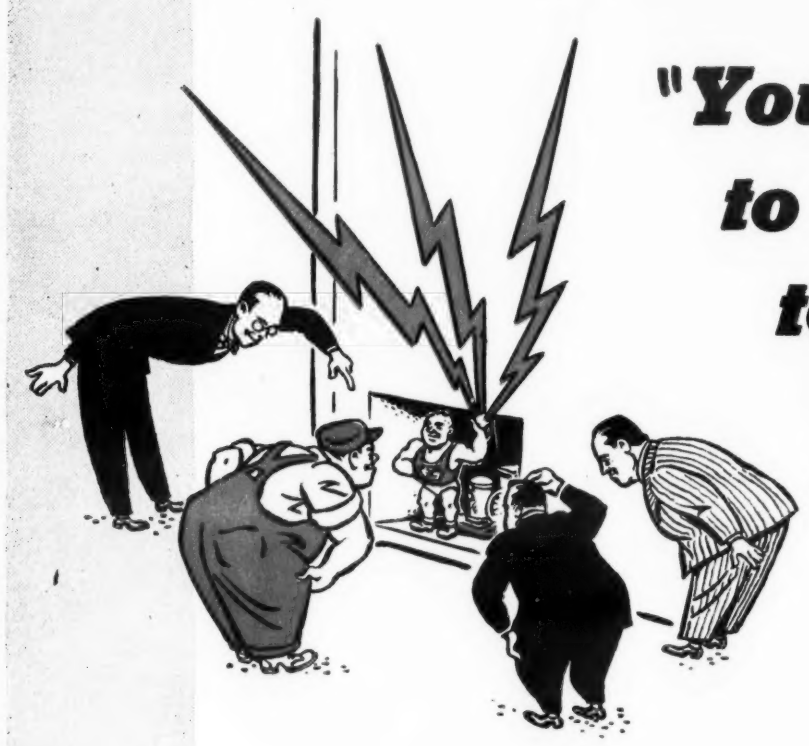
Minneapolis-Honeywell's Canadian Plant Purchase Triples Firm's Capacity

MINNEAPOLIS — Purchase of a new plant which will triple the company's Canadian manufacturing facilities was announced here recently by Harold W. Sweatt, president of Minneapolis-Honeywell Regulator Co.

Located at Leaside on the outskirts of Toronto, the new factory which was purchased from Small Electric Motors (Canada) Ltd., already is in production, and currently is employing 250 persons for manufacture and assembly.

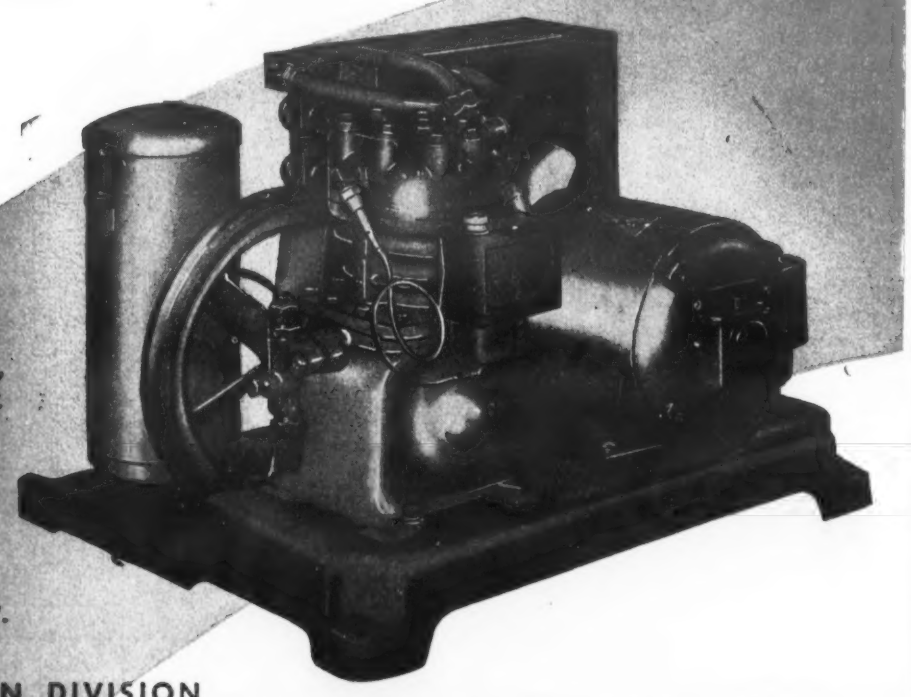
Under direction of W. H. Evans, general manager for Canadian operations, the new plant will make and assemble the major share of all of Honeywell's controls for the Canadian market, Mr. Sweatt said.

Manufacturing and sales operations formerly located at the company's older facilities at 117 Peter St., Toronto, were terminated at the end of March and the transfer to the Leaside location fully completed.



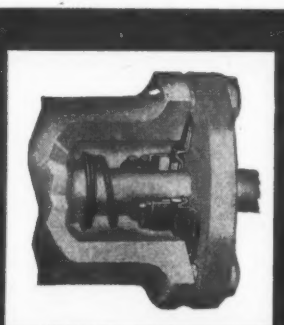
"You don't have to be BIG to be TOUGH" says the Lehigh Team

The LEHIGH TEAM isn't arguing the merits of a 'good little man' versus a 'good big man'. The idea is — TIMES have changed. Design has improved. Experience is greater. Tools and processing have improved ● Modern airplane engines, for example, demonstrate the point. Big power and reserve in small, compact units. ● That's what you get in the new "M&E" LEHIGH Condensing Unit. A weight-saving, space-saving unit power-packed to a new high and fully adapted to all heavy-duty commercial uses. We will be glad to send you data sheets on current available models.



M&E EST. 1866
Lehigh
⅓ H.P.
•
COMPLETE LINE TO INCLUDE 1/4 to 5 H.P.

"M & E" REFRIGERATION DIVISION
Lehigh Foundries, Inc. PLANT: LANCASTER, PA.



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RFC Named To Assist Small Businesses To Buy Surplus Items

DETROIT—To assist small business, including veterans who qualify as small business, in acquiring surplus property under Section 18 (E) of the Surplus Property Act, the Reconstruction Finance Corp. has the authority to purchase such property for resale to small business, according to Charles E. Williams, acting manager of the loan agency here.

(RFC's definition of small business is: "Any business privately owned and operated for profit which is not dominant in its field; is not affiliated with an organization dominant in its field; and has less than 500 employes.")

By virtue of a recent executive order, the administration of the Surplus Property Act was transferred from the Smaller War Plants Corp. to the RFC, said Mr. Williams.

The priority established by Section 18 (E), he continued, will be exercised only when a small business concern is not able to acquire the desired property from the designated disposal agencies or normal channels of trade.

Prospective purchasers who desire additional information, or forms for application are instructed to visit their nearest RFC agency.

MacGann To Manage Baltimore M-H Branch

BALTIMORE—Promotion of Lloyd MacGann to branch manager of the Baltimore office of the Minneapolis-Honeywell Regulator Co. is reported by Arnold Michelson, New York resident vice president.

Mr. MacGann joined the company in 1937, and, after a training course, was assigned to the Providence office and, in 1942, was assigned to the Boston branch.

Expansion of the Baltimore office is also planned, Mr. Michelson said, which will permit Frank Bell, former Baltimore manager, to devote his entire attention to the company's heating controls division.

Haggard Is Store Head

OKLAHOMA CITY, Okla.—J. R. Haggard has been named manager of King's Furniture & Appliance Store, opened April 1 at 6th and Harvey Sts., Oklahoma City.

Utility Stores In Texas Free From Chain Tax

AUSTIN, Tex.—An opinion handed down this month by the Texas Supreme Court ruled against the state in its attempt to collect $16,753 chain store taxes from Southwestern Gas & Electric Co.'s outlets in towns below 3,000 population.

The suit was in the nature of a test case and, according to State Comptroller George H. Sheppard, about $375,000 in taxes from all utilities hinged upon its outcome.

An exemption for gas and electric utilities was made by the State Legislature in 1941, but was subsequently held unconstitutional by the state attorney general. The present law was not in dispute. It was amended in 1945 to exempt utilities in towns under 3,000 where their retail business in appliances amounts to less than 25% of total income.

Written by Associate Justice C. S. Slatton, the Supreme Court opinion affirmed the State Court of Civil Appeals, and reversed the decision of the trial court.

York Announces Shift In Carolina Franchises

YORK, Pa.—York Corp. announces two changes in its North Carolina distributor organization, with one distributor moving to Raleigh from Wilmington, and a new additional distributor has been appointed in Wilmington.

Sneeden-York Co., Inc., has opened new headquarters at Raleigh, N. C., having previously been located at Wilmington, N. C. J. Earl Sneeden is the owner and manager of the company, and Paul O. Stahl, a native of Raleigh, is the sales manager.

In addition to its headquarters at Raleigh, Sneeden-York will have a display room and sales and service organization in Durham, N. C., and a resident salesman in Wilson, N. C. The new franchise is for the northeastern quarter of North Carolina, including Roxboro, Sanford, Winton, Manteo, and Greenville.

York's new distributor is Sneeden-Spivey Co., located at 1106 Market St., Wilmington, N. C. W. B. Spivey, formerly with the U. S. Engineers, is manager; J. E. Sneeden, Jr., recently discharged from the army, is in charge of merchandising sales; A. C. Craft is in merchandising sales; Lee Raines is service manager. A salesman is located at Fayetteville.

The new distributor at Wilmington will handle standard York equipment in the southeastern quarter of the state, including Beaufort, Bayboro, New Bern, Trenton, Clinton, Whiteville, and Laurinburg.

Refrigeration Units To Improve India's Crops

SYRACUSE, N. Y.—Under government priority, Carrier Corp. here is shipping especially designed refrigeration units to India for installation in four seed potato warehouses, announced Cloud Wampler, president.

Having a capacity of 660 tons each, the units will be installed in privately financed and operated warehouses in Lahore, Delhi, and Gurdaspur in an effort to reduce materially the annual 35% to 75% crop spoilage between harvest and planting, Mr. Wampler explained.

Device Replaces Use For Special Motors

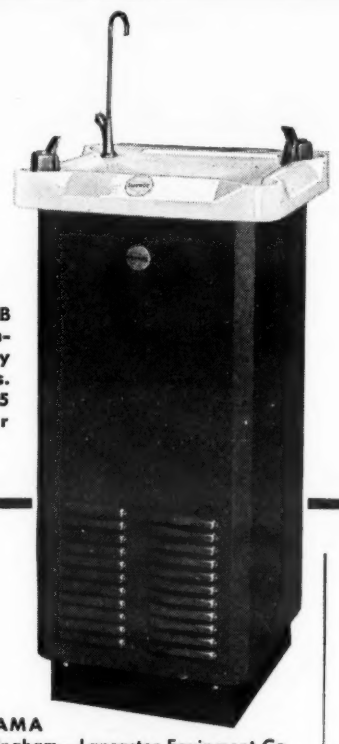
INDIANAPOLIS—A new vibrator inverter has been developed by the Electronic Laboratories, Inc. here, to eliminate the installation of special motors in refrigerators dependent of 115 volt direct current power lines for operation.

This model has been designed to operate a ⅛-hp. 115 volt alternating current motor from a 115 volt direct current line. The unit's small size enables it to be placed underneath the refrigerator beside the refrigerator motor. Placed out of sight, it is also properly soundproofed to insure quiet operation.

After the initial installation, operation becomes entirely automatic, and it is filtered so that there will be no radio interference in household radio receivers.

This newly developed inverter is available only to refrigerator manufacturers at the present time, it was stated.

The inverter weighs 6¾ pounds and measures 10 x 6⅝ x 6$^{11}/_{32}$ in.



MODEL NM3B
One of Sunroc's heavy duty coolers. Capacity, 15 gallons per hour.

TEAMED FOR SUCCESS

More than 100 ranking distributors . . . Maine to California, and abroad . . . have pinned their faith to the promising future of Sunroc Water Coolers. Sunroc is firmly established in the national picture, with ample production of its perfected, much-needed product . . . powerful promotion and advertising, on a national scale . . . and aggressive representation in strategic centers, throughout the country.

The prestige of Sunroc Water Coolers is well established . . . the demand for them is urgent and widespread. The Sunroc distributors below offer the finest line of AC and DC water coolers on the market, engineered and styled for business, industrial, and institutional needs. Their sales-drive is backed by the factory, every step of the way. Sunroc and its selling organization are teamed for success.

SUNROC DISTRIBUTORS

ALABAMA
Birmingham—Lancaster Equipment Co.
Montgomery—Noland Co.

ARKANSAS
Little Rock—Arkansas Radio & Appliance Co.

CALIFORNIA
Los Angeles—Gough Industries, Inc.
Sacramento—Dallman Supply Co.
San Francisco—Dalco Appliance Co.

COLORADO
Denver—Home Appliance Distributing Co.

CONNECTICUT
Hartford—Marsden & Wasserman, Inc.
New Haven—Grand Light & Supply Co.
New London—United Electric Supply Co.

DISTRICT OF COLUMBIA
Washington—Washington Wholesalers

FLORIDA
Jacksonville—Florida Radio & Appliance Corp.
Miami—Florida Radio & Appliance Corp.
Pensacola—Gulf Electric Supply Co.
Tampa—Florida Radio & Appliance Corp.

GEORGIA
Atlanta—Noland Co.
Macon—Noland Co.
Savannah—Byck Electric Co., Inc.

IDAHO
Boise—Monroe & Crisell

ILLINOIS
Chicago—Dwight F. Dean
Peoria—Temp-Control, Inc.
Springfield—United States Electric Co.

INDIANA
Evansville—Goad Equipment Co.
Fort Wayne—Pettit Distributing Co.
South Bend—The Ridge Co.
Indianapolis—Appliance Distributors, Inc.

IOWA
Cedar Rapids—The Van Meter Co.
Des Moines—Electric Supply Co.
Sioux City—Kutel Refrigeration Co.

KENTUCKY
Louisville—The Continental Co.

LOUISIANA
New Orleans—Interstate Electric Co.
Shreveport—Electric Supply Co., Inc.

MAINE
Lewiston—Hall & Knight Hardware Co.

MARYLAND
Baltimore—Shepherd Electric Co., Inc.
Cumberland—Joseph S. Karp & Brothers

MASSACHUSETTS
Worcester—Walker Electrical Supply Co.

MICHIGAN
Ann Arbor—Ann Arbor Appliance Co.
Battle Creek—Central Electric Supply Co.
Detroit—Mercier & Spalding, Inc.
Grand Rapids—L. H. Udell & Sons
Menominee—Northern Hardware & Supply Co.
Saginaw—Morley Brothers

MINNESOTA
Minneapolis—W. R. Beamish Co.

MISSISSIPPI
Jackson—Cabell Electric Co.

MISSOURI
Kansas City—Kilby Johns Co.
St. Louis—General Pipe & Brass Co.

NEBRASKA
Omaha—General Appliance Co.

NEW HAMPSHIRE
Manchester—New Hampshire Hardware & Plumbing Supply Co.

NEW JERSEY
Newark—Northern Air Conditioning Corp.
Pleasantville—Ace Machine Co.

NEW YORK
Albany—J. M. Steinhardt, Inc.
Binghamton—Southern Tier Electrical Supply Co., Inc.
Buffalo—Radio Equipment Corp.
New York City—Factory Branch
Olean—LeValley-McLeod-Kinkaid Co., Inc.

NEW YORK (Cont'd)
Poughkeepsie—Electra Supply Co., Inc.
Rochester—Gould-Farmer Co., Inc.
Syracuse—Alexander Grant's Sons

NORTH CAROLINA
Charlotte—Southern Radio Corporation
Durham—Noland Co.
Raleigh—Noland Co.
Wilmington—S. R. S. Distributors

NORTH DAKOTA
Fargo—Fargo Glass & Paint Co.

OHIO
Akron—The Sacks Electrical Supply Co.
Bridgeport—A. G. Dienstel Co.
Cincinnati—The Mutual Mfg. & Supply Co.
Cleveland—Midland Electric Co.
Columbus—F. O. Carpenter & Son
Dayton—Yonts Radio & Appliance Co.
Toledo—Loeffler Electric Co., Inc.

OKLAHOMA
Oklahoma City—Southwest Radio & Equipment Co.

PENNSYLVANIA
Allentown—Allen Electric Co., Inc.
Altoona—Joseph S. Karp & Brothers
Johnstown—Joseph S. Karp & Brothers
Harrisburg—Appleby Bros. & Whittaker Co.
Philadelphia—Factory Branch
Pittsburgh—Pittsburgh Products Co.
Reading—Dries Hardware Store
Scranton—The Charles B. Scott Co.
Towanda—The Charles B. Scott Co.

RHODE ISLAND
Providence—Providence Electric Co., Inc.

SOUTH CAROLINA
Charleston—Home Appliance Co.
Columbia—Noland Co.
Spartanburg—Noland Co.

TENNESSEE
Bristol—Furrow Electric Co.
Chattanooga—Noland Co.
Knoxville—A. C. Rochat
Memphis—McDonald Brothers
Nashville—Gambill Distributing Co.

TEXAS
Dallas—Norman-Young Appliance Co.
El Paso—Midland Specialty Co.
Fort Worth—The Shield Co.
Houston—Coastal Equipment Co.
San Antonio—Alamo Distributing Co.

UTAH
Salt Lake City—Stewart Distributing Co.

VIRGINIA
Lynchburg—Noland Co.
Newport News—Noland Co.
Norfolk—Noland Co.
Richmond—Noland Co.
Roanoke—Noland Co.

WASHINGTON
Yakima—Yakima Pump & Plumbing Co.

WEST VIRGINIA
Clarksburg—The Stout Co.
Huntington—Tri-State Appliance Co.

WISCONSIN
Milwaukee—Clark Supply Co.

WYOMING
Casper—Casper Supply Co.
Worland—Casper Supply Co.

BRAZIL
Rio de Janeiro—Bianchi, Rossi and Cia, Ltda.

CANADA
Montreal—G. H. Wood & Co., Ltd.
Toronto—G. H. Wood & Co., Ltd.
(and 23 other branches)

CUBA
La Habana—Refrigeracion y Aire Acondicionado

HAWAII
Honolulu—Honolulu Iron Works Co.

PANAMA
Ciudad de Panama—Compania General Panamena S. A.

PERU
Lima—Eguren, Echecopar & Cia, S. A.

PHILIPPINE ISLANDS
Manila—Honolulu Iron Works Co.

PUERTO RICO
San Juan—Insular Distributors, Inc.

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Glen Riddle, Pa.

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ACRN-4

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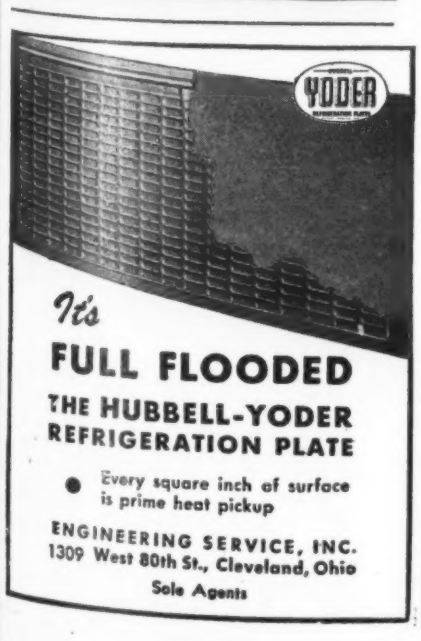
SUNROC
Water Coolers
GLEN RIDDLE, PA.
"THERE'S NOTHING LIKE A COOL DRINK OF WATER"



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THE HUBBELL-YODER REFRIGERATION PLATE
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Acknowledged as the industry's most effective seal for replacement (even on scored or bent shafts) because it has the self-adjusting sleevelock. Quickly installed. For REAL SATISFACTION never accept a substitute. At all jobbers.

Chicago Seals are best for Coldspot. • Only Chicago Valve Plates have replaceable valve seats.

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Packed in Special Cardboard Boxes or Containers

Offers
(1) Complete inventory record.
(2) Part numbers always visible.
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for Conventional and Hermetic Type Compressors

Write for illustrated catalog and price list.

HASCO, INC.
GREENSBORO, N. C.

Bendix Schools Home Laundry Demonstrators

Firm Teaches Post-Sale Home Demonstrations By Trained Specialists

SOUTH BEND, Ind. — Convinced that satisfied users are the best salesmen of any product, officials of Bendix Home Appliances, Inc., has established as a "must" in the merchandising program of the Bendix Home Laundry a post-sale demonstration and instruction course given by a trained field specialist right in the customer's home within 48 hours after installation.

"Coupled with the Bendix method of doing an age-old chore came the need for going a step further in the merchandising of the machine. Mrs. America had to be helped in realizing the potentialities of automatic washing. There had to be a revolution in the long established methods of laundering," declares Edwina Nolan, director of the Bendix Home Laundry Institute.

Starting point for this program was the Bendix Home Laundry Institute, where the 79 home service directors of Bendix distributors were schooled in a series of five day courses concerning all the aspects of the product, the fundamentals of laundering, new soaps, use of detergents, new fabrics, sales presentation, and advertising and sales promotion.

Upon return to her respective distributorship, each home service director then organized her own demonstration department, selecting and training an adequate number of field specialists to do the actual demonstrating following each sale. At present more than 2,000 trained specialists are on the job throughout the country, working for the most part under the immediate direction of the distributors' home service directors, Miss Nolan reports.

Edwina Nolan (second from right) directs student home service directors at the Bendix Home Laundry Institute on how to demonstrate the Bendix automatic Home Laundry to users in their homes. With Miss Nolan, who is director of the Institute, are Ruth Bush, Birmingham Electric Battery Co., Birmingham, Ala.; Christine Barham, Wayne Spinks Co., Memphis; and Mrs. Ouida Kelly, W. G. Walz Co., El Paso, Texas.

ISOLATED DEALER PLAN

Isolated dealers make their own demonstrations or have their wife or a clerk trained in distributors' classes to carry out this Bendix plan.

"Many women, tied by habit to old methods, possibly feel a bit strange handling a machine which is equipped to do their work for them," says Miss Nolan. "They might not realize its versatility as a cleaner of garments, linens, draperies, woolen blankets, and other items if it were not for in-the-home demonstrations."

The home laundry specialist and her boss, due to their thorough knowledge of the machine and washability science, are proving a great supplement to the service department, Miss Nolan points out. When women know what the equipment will do, they won't misuse it, thereby many service calls are eliminated.

Also, calls for help in washing such things as woolen blankets or greasy overalls are received by the washability experts, instead of the service man, she explained.

Benefits reaped by the dealer and distributor from the Bendix post-sale demonstration plan are enumerated by Miss Nolan, as follows: First, it is a personalized service given to the housewife when she invests in the automatic washer; second, it solves many washability problems which might otherwise bring about criticism of the machine; third, it is a tie between the dealer and the customer; and fourth, it builds good will which in the long run spells more sales.

In addition to initiating the demonstration program, the Bendix Home Laundry Institute now carries on as a clearing house for washability problems, as leadership for the field organizations, and as a practical laboratory for testing the manufacturer's products, Miss Nolan reports.

Boeckler Lumber Co. Obtains Major Appliance Franchise

ST. LOUIS—Boeckler Lumber Co., in suburban Wellston here, has been franchised to distribute major appliances to surrounding rural counties.

The lumber company has recently completed a new showroom, which will feature among other house improvements, complete "package kitchens" for farm homes.

Eventually, the lumber company hopes to have a "demonstration trailer" for taking appliances direct to customers' homes.

New San Antonio Firm Starts

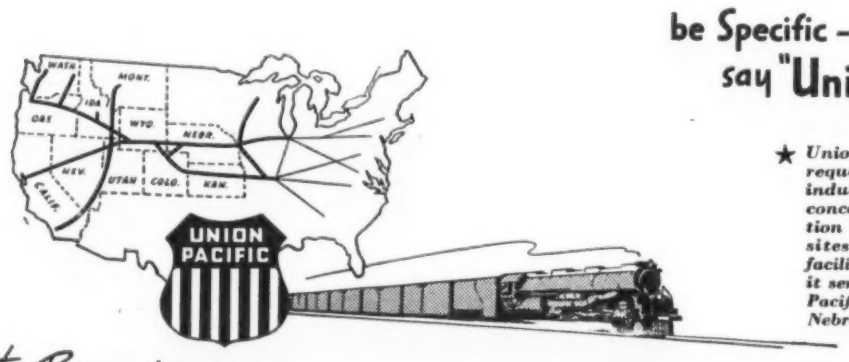
SAN ANTONIO, Tex. — Gilmore and R. G. Offer have opened their new Highland Home & Auto Supply store at 1902 South Hackberry St. here, with appliance lines among the merchandise offered.

Pictured above is another reason why Union Pacific can maintain fast schedules. It's one of the "Big Boys," 600-ton super-powered freight locomotives designed to meet industry's heaviest demands.

But it takes more than horsepower to keep shipments rolling on schedule. The "know how" of many thousands of trained Union Pacific employees . . . the time-saving Strategic Middle Route uniting the East with the West Coast . . . are *plus* advantages only Union Pacific provides.

Union Pacific traffic experts are located in metropolitan cities from coast to coast. Call on them to assist in solving your transportation problems.

For efficient, dependable freight service—



be Specific – say "Union Pacific"

★ *Union Pacific will, upon request, gladly furnish industrial or mercantile concerns with information regarding available sites having trackage facilities in the territory it serves. Address Union Pacific Railroad, Omaha, Nebraska.*

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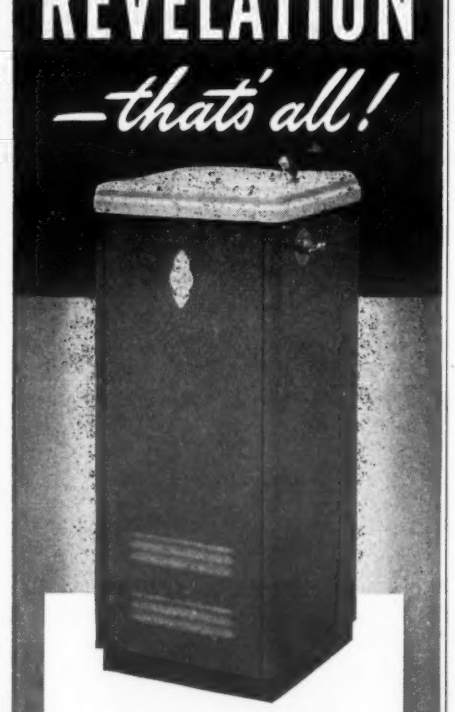
UNION PACIFIC RAILROAD
The Strategic Middle Route



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★ All sizes: Industrial and Commercial
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No scratches—no mars—no delivery woes, when that shiny new refrigerator is protected by a Mastercraft Adjustable Refrigerator Pad. Sturdily constructed, it provides ample protection. It's economical, too, only $11.75 each, and it's adjustable to any size cabinet.

The Mastercraft Adjustable Carrying Harness at $8.50 each makes delivery of your refrigerator easy.

Attractive lettering of your name on pad at $2.00 each extra.

Write today for complete folder and prices on pads for refrigerators, home freezers, washers, ironers, ranges, radios; also furniture pads and protective slipcovers.

BEARSE MANUFACTURING CO.
Incorporated 1921
3815-3825 Cortland Street
Chicago 47, Ill.

New Carrier Floor and Window Units Offer All-Function Summer Air Conditioning

SYRACUSE, N. Y.—Three models of window-type room air conditioning units, suitable for installation in any window at least 26 in. wide, will be available before mid-year, Carrier Corp. announced recently.

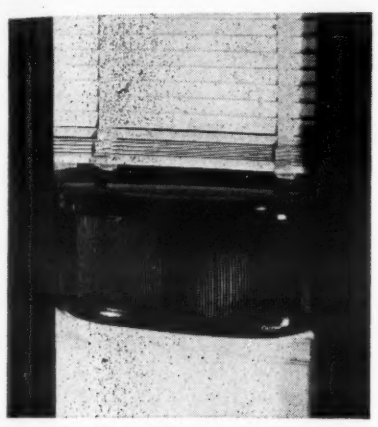
The Carrier units cool, dehumidify, filter, ventilate, and circulate the air to maintain a room at cool comfort while the outside temperature hovers around 95° F., the company claims.

The room air conditioners are installed by plugging in to an ordinary wall socket. In addition to the Carrier Master unit that fits on the window sill, there are two larger floor models, the deluxe model and the director model, for cooling large and extra large rooms. All three models use "Freon-12" and are controlled by a three-position switch.

The Carrier Master room air conditioner is 12⅜ in high, 26⅛ in. wide, 26½ in. deep, and projects 11 in. into the room. This unit operates on 115 volt, single phase, 60 cycle current.

Powered by a ½-hp. hermetically sealed compressor and using a 1/20 hp. fan motor, the Master unit has damper regulated ventilation and a replacement-type air filter, the company reports.

With switch in one position, the Master operates as a complete air



Carrier window unit, installed.

* * *

conditioner. A turn of the switch converts the unit into a ventilator only.

This window sill model is encased in a rich brown cabinet said to blend harmoniously with other room furnishings.

The Carrier Deluxe room air conditioner, a floor model, is 34 in. high, 34 in. wide, and 17½ in. deep. It is capable of operation on a wide variety of electric circuits, Carrier reports.

Power is supplied by a ¾ hp. air conditioning compressor and a 1/30 hp. fan motor. There is a replacement type air filter and an exhaust damper, with the installation of a thermostat optional. When the switch is in one position, the unit acts as a complete air conditioner, the other two positions controlling ventilation and circulation functions. The cabinet is of the console type constructed of hand-rubbed walnut.

Summer ventilation damper admits the proper amount of outside air for ventilation, the company claims, and

Floor-type room cooler.

* * *

the winter ventilation damper admits all outside air needed to cool and ventilate the room in spring or fall seasons. A special exhaust damper removes smoke or odors from the room.

Recommended for large offices where several people work, or for large rooms in the home, the floor model Carrier Director unit is 42½ in. high, 39 in. wide, and 23⅛ in. deep, and operates on a variety of electric circuits. It is powered by a 1½ hp. compressor and a 1/30 hp. fan motor.

In addition to a replacement type air filter and a three position switch, the Director comes complete with an automatic thermostat temperature control. "You can set it and forget it," Carrier claims.

The summer ventilation damper admits the proper amount of outside air for ventilation, and the winter ventilation damper may be used to remove smoke or odors from the room.

Laube New President Of Remington; Plans Products For Export

SYRACUSE, N. Y. — Herbert L. Laube has been elected president of Remington Corp., which is resuming the manufacture of packaged air conditioning equipment which will be sold exclusively to the export market.

Mr. Laube resigned as vice president of Carrier Corp. to take over the presidency of Remington. He had directed the company's engineering, research, and new product development during the war, and prior to that had been a vice president of Carrier International Division. He had been with Carrier since 1927 and in the refrigeration industry since 1924.

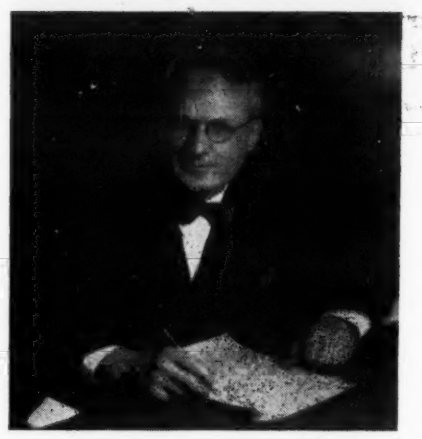
While not ruling out entirely the prospect of a domestic sales program, Mr. Laube has already made it clear to the company's prewar distributors overseas that their orders will have precedence on the Remington books. The task of supplying these needs occupies all the firm's immediate planning, and is expected to absorb all production for at least two years.

"The United States and our industry not only have a challenging opportunity at home, they have an inspiring duty to help hot-climate nations overcome the tropics' energy-draining, unhealthy, and retarding effects on business and social progress," Mr. Laube declared.

Mr. Laube will make his headquarters at Cortland, N. Y., where the company has bought the former plant of the Con-O-Lite Co. and will occupy it June 1. With a floor area of 25,000 sq. ft., the three-story structure is expected to be turning out units by August.

Production manager will be Fred Stidfole, associated with Carrier since 1934 in the export construction, service, and production departments. He was manager of the Carrier

Heads Conditioner Firm



HERBERT L. LAUBE

* * *

manufacturing laboratory when he resigned early in 1946 to join Remington.

Other officers of the company are James R. FitzGerald, vice president and treasurer; and Caleb Candee Brown Jr., secretary.

Mr. Laube said that initial production emphasis will be given the company's new Model 10 room air conditioner, an air cooled unit employing a 1-hp. condensing unit and having a capacity up to 11,000 B.t.u. per hour. It is designed for home and office use.

Production of the other three models in Remington's prewar line will be undertaken when the plant is in full production. These include a second room cooler, smaller and lower priced, and two sizes of store units in 3 and 5-ton capacities.

According to Mr. Laube, design and engineering features of the units will include (1) increased refrigeration capacity to handle greater volume of air and higher temperatures; (2) greater dehumidifying capacity; (3) a flexible design that will operate at full capacity on electric current of virtually any characteristic.

Remington units were bought assembled from other makers during the prewar period. In anticipation of a manufacturing operation, the company's stockholders at their March meeting voted a substantial increase in the corporation's authorized capital.

The present Remington company is a successor to the Remington Machine Co. which has been in continuous operation since 1872, and which started the manufacture of mechanical refrigeration equipment in 1889.

Offers Performance Data On Propeller Fans

TORRINGTON, Conn.—The difference between NEMA and NAFM performance ratings of propeller type fan blades cannot be overlooked, when one studies the data in the Torrington Mfg. Co.'s new fan blade catalog, now being distributed.

Both types of ratings are shown side by side for each of the fans which it is practical to use either in free air (NEMA) or under pressure (NAFM).

Throughout the book, the space is devoted to facts and figures. It is edited to provide anyone needing data on propeller type fan blades with a valuable reference work.

Specifications and performance on two new 24 in. fans in the four-blade "Standard" design are among the 134 fans, ranging from 3 in. to 48 in. in diameter, listed in this catalog.

cool – cooler – coolstream

cool

cool—*adj.*—slightly or moderately cold; *v.t.* to make cool; *v.i.* to become cool

cool-er—*n.*—that which cools; a vessel for cooling liquids, etc.

cool-stream—*n.*—the superlative in electric water coolers. Skillfully defined in superior materials. Ably engineered for distinguished performance. Designed conveniently with a one-piece stainless steel cabinet—easily removable without tools and showing harmonious consideration for all interiors. Synonym: *satisfaction*

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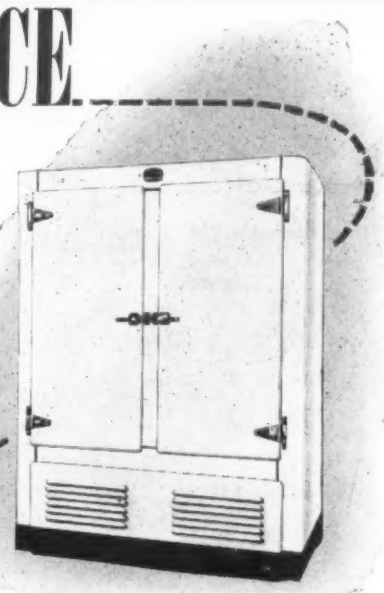

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THE BOSS IS OFF KEY ON THAT WATER BUFFALO STUFF, BUT WE'VE CERTAINLY HAD A PACK OF WOLVES AROUND HERE SINCE THAT NEW DAME CAME ON THE JOB.
EVEN OLD LUSHWELL HAS JOINED THE STAMPEDE. I DON'T THINK HE EVER DRANK WATER IN HIS LIFE BEFORE.
A LOT OF SIMPERING IDIOTS, IF YOU ASK ME, AND BESIDES, WHAT'S SHE GOT THAT WE HAVEN'T GOT?
JIMMY HATLO
WATCHING THE LADS BEAT A TRACK TO THE OLD WATER COOLER TO LAMP THE NEW OFFICE ORNAMENT.
Thanx To MAE WEISEL WESTWOOD, CALIF.
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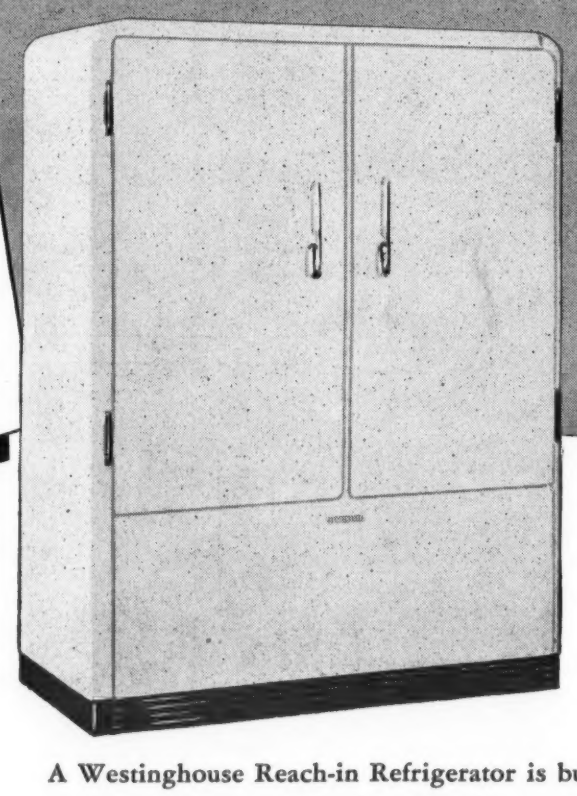

You'll have many new and improved features to sell in the postwar Westinghouse Reach-in Refrigerators—real advantages in today's market. For example, the exclusive Flow-trol system of air circulation. Its unusually large coil surface and relatively high coil temperature keep coils frost-free and insure proper humidity at all times. Gentle forced air circulation provides uniform temperature throughout the cabinet.

These models are powered by the famous hermetically-sealed condensing unit, developed and pioneered by Westinghouse. No belts to break—no shaft seals to leak—lifetime oil supply sealed in—dust and dirt sealed out . . . features which provide your customer with time-proved dependability . . . real sales values.

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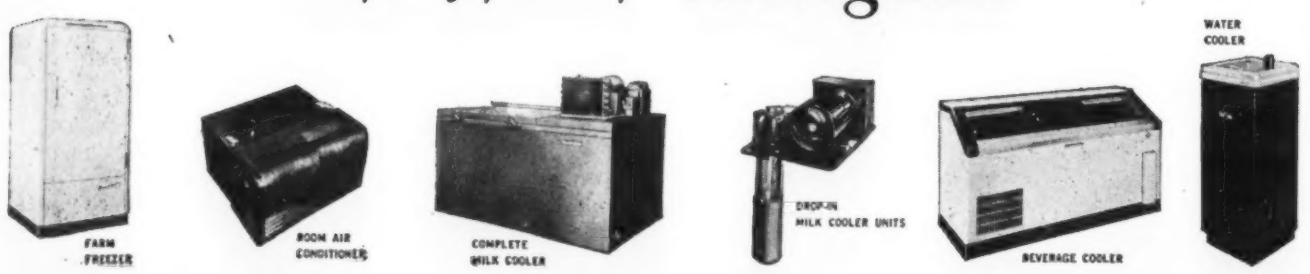

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The OPA Can't Change Laws of Arithmetic

CHARLES E. WILSON, president of the General Electric Co., has recently expressed the opinion that most large industrial corporations should be willing to arbitrate any or all of the elements of industrial disputes except the issue of wages.

In a question-and-answer period after his address at the second seminar for clubwomen conducted by *The New York Times,* Mr. Wilson was asked at what point, if any, the Government should step in and demand arbitration in a vital industrial dispute.

He replied that when a strike affected the national interest, after collective bargaining had failed, "the Government must step in, and may possibly demand arbitration.

"I think industry would be found unwilling to arbitrate wage raises, though willing on anything else," he added. "After all, a pay increase might be sufficient to put the company out of business, and that couldn't be left to an arbitrator, particularly a Government-appointed one."

Deposing that his company now was making many electrical appliances at a loss, he added:

"As I told our employes last week, that situation cannot continue, and so prices must be raised. None of these employes would want to work very long for a company which was paying out more than it took in.

"On the price question, we do not think that Government agencies will ultimately be a controlling factor, because even a Government agency cannot change the laws of arithmetic.

"It is fortunate that we are able, and for a time willing, to keep things moving along in the national interest. But in the end, the law of supply and demand, and *competition,* will control our prices as they always have."

Nothing is to be gained, and much may be lost, by expecting price control to do more than it is capable of doing. It is a temporary cushioning device, not a corrective mechanism. Price regulation can do nothing to remove or diminish the forces tending to raise prices. On the contrary, its natural effect is to strengthen and perpetuate the upward pressure by holding prices at artificially low levels, thereby restricting supply and stimulating demand.

A soundly conceived price-control policy, therefore, should be based on a clear recognition of its own limitations. It will be both useless and dangerous to wait for the pressures against price ceilings to disappear, for the wartime accumulation of purchasing power to be absorbed, or for supply and demand to balance under the ceilings. Whether such a balance will ever take place while price control continues is doubtful, and certainly the control can do nothing to promote it.

Price control creates evils greater than those it aims to avert. The maintenance of sound and equitable cost-price relationships necessitates constant readjustments; and the time required for administrative agencies to make such readjustments is so great as to impede production and employment.

It is to be doubted whether price regulations can be enforced effectively in the absence of wage control and rationing. To the extent that they are enforced, the narrowing of the margin between prices and costs may weaken or kill the incentive to produce. As long as price control continues, and in so far as it is effective, the excess purchasing power accumulated during the war years will remain undiminished, and consequently the need for control will continue indefinitely.

The Public Still Wants Appliances, But Many Buyers Say They Won't Take the First Units on the Market

SAN DIEGO—A strong indication that consumers in this area do not intend to buy the first electrical appliance available, was given in a survey of the local gas and electrical appliance market potential recently completed by John Knight, market analyst, under the sponsorship of the San Diego Gas & Electric Co. Of those who said they intended to make an early purchase of an electrical appliance, over 80% said they would not purchase the first make available.

Representing Knight & Parker, a firm widely recognized as an authority on public opinion surveys, Mr. Knight first asked housewives how many intended an early purchase of some type of appliance. Approximately 47.2% replied in the affirmative. Some 34.2% of the total number questioned said they wanted to buy an electrical appliance within the near future, and 13% claimed they would purchase a gas appliance. These figures are considerably under last year's forecasts, according to J. Clark Chamberlain, secretary-manager of the Bureau of Radio & Electrical Appliances for this territory.

Out of those who expect to make an "early purchase," 53.6% will be buying for the first time and 46.4% will be replacing worn-out appliances, the report indicated. When housewives in this same group were asked whether they would buy the first make available, eight out of ten said "No!" Only 17.4% of those intending to get an electrical appliance soon would be willing to take the first one that was made available to them. All but about 2% of the rest said they would wait.

Their reasons for waiting were varied. Some 47% said they preferred a "certain make," 13.1% claimed "better material would be available later," and 7.6% expected better features on their appliances later.

Of those desiring to purchase some type of gas appliance soon, 81.5% said they would rather wait than buy the first brand that appeared. A total of 13%, however, registered their intent to buy whatever the market initially offered. Explaining why they did not wish to buy the first gas appliance available, 45% of the housewives said they wanted to purchase a certain brand, another 20% believed that later materials would be better, and 8.1% expected new features to appear in later models.

Mr. Chamberlain saw a challenge in the figures included in the survey. "These . . . figures indicate that about five out of six persons will not simply jump at the chance to purchase an appliance or radio. Brand consciousness is clearly shown in this survey, as well as a fear that early appliances may lack the best material, or certain features that may come later. It appears as though our plans for aggressive sales training programs and promotions may be needed sooner than expected."

Lazarus Dept. Store Sets Stage for Appliances In Annex Converted from Public Auditorium

COLUMBUS, Ohio — Five model Kitchen displays, featuring refrigerators, electric ranges, and other fitting appliances, have replaced stage shows, dramatic productions, and exhibitions on the stage of the Columbus auditorium here, following its conversion into a housewares and major appliance annex to the main store of the F. & R. Lazarus & Co., a subsidiary of Federated Department Stores, Inc.

The former auditorium, located diagonally across from the Lazarus store on the corner of Town and Front Sts., was purchased for $175,000 in 1944 and remodeled at a cost of $150,000 with the use of practically no strategic materials. The addition of a second floor at the old balcony level is said to have been one of the few major changes.

On the second floor will be a housewares warehouse, merchandise being transported to the first floor selling area on specially designed trucks that fit into two elevators, the company reports.

The stage itself has been left intact and is said to provide an admirable focal point for the whole selling floor. As a means of drawing the eye to the five model kitchen displays featured on the stage, a dropped ceiling area painted tangerine red was innovated. Refrigerators, gas and electric ranges, cabinet sinks, and steel and wood cabinets are displayed and sold here. Lazarus not only will provide the units for home kitchens, but also will contract for their installation, supplying workmen for the necessary plumbing, wiring, carpentering, plastering, painting, and floor installation, it is reported.

Near the kitchen modernization center, and also on stage, will be specialized shops for linoleum and sewing machine displays. Dozens of patterns, colors, and individual design inserts will be featured on the entire floor of the stage for customers' inspection.

Backstage was located a maze of stairways and rooms, many of which have been remodeled and assigned certain roles in the merchandising of housewares and appliances, it is reported.

Three levels of dressing rooms were adjacent to the stage. Those on the first floor have been converted into a repair parts department, which will be accessible to customers and to Lazarus service shops located in the basement directly below and connected by a dummy elevator.

The corresponding dressing rooms on the second floor level will house the offices of housewares clerical workers and the price-ticket printing office, the company said.

A large former scenery storage room, north of the stage, has been remodeled to house a home service department staffed by home economists and equipped with a small stage designed for cooking, laundering, canning, and sewing demonstrations, the company announced. Having a seating capacity of 150, this room will be made available to small clubs and organizations, according to present plans.

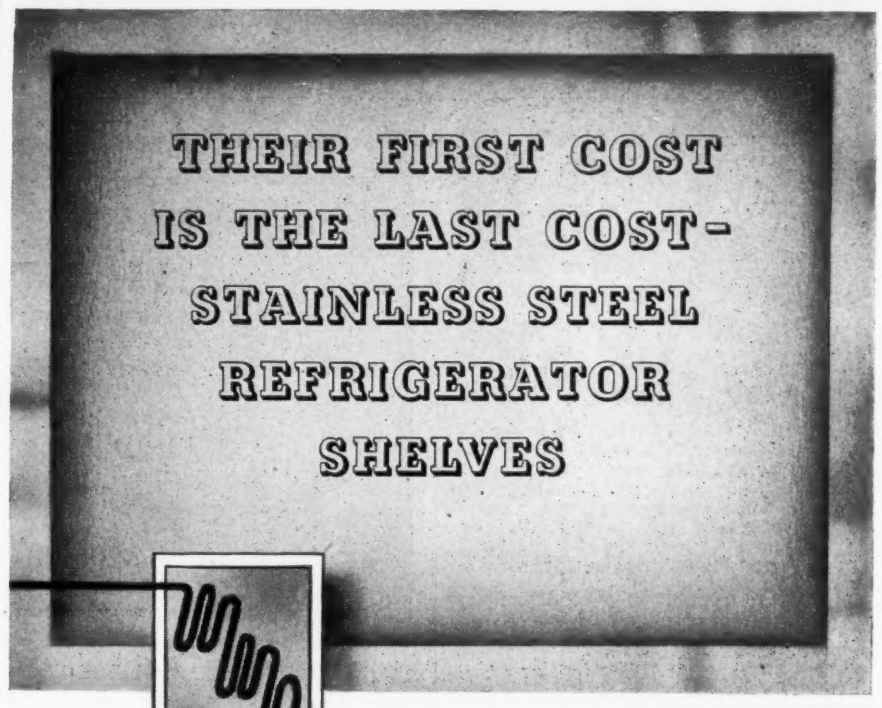
Periphery areas of the auditorium will be used as specialized shops for paper, oil cloth, kitchen furniture, hardware, and other accessory merchandise.

Walls and ceilings of the selling floor are painted in contrasting tints and sharper shades. Much of the fixturing for this floor was done in Lazarus' workshops, old fixtures being redesigned and rebuilt into modern display and storage pieces, it is reported.

Among other featured shops in the annex will be: An enlarged hardware shop with a staff headed by a former manual training teacher offering tools and equipment for home repairs and hobby workshops, in addition to supplying precision tools for skilled mechanics; and a home comfort center offering Iron Fireman stokers, air conditioning units, and ventilating fans for kitchens and attics.

A refrigeration center, featuring sample displays, a laundry center, and an electrical housewares section also are planned for the selling floor.

The basement of the annex will house the delivery and service departments, and will provide warehouse space for major appliances. On this level there is a truck entrance directly under the stage.



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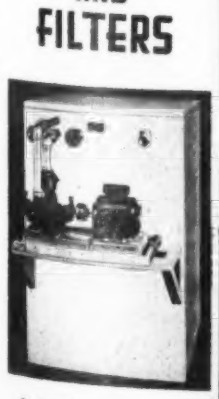

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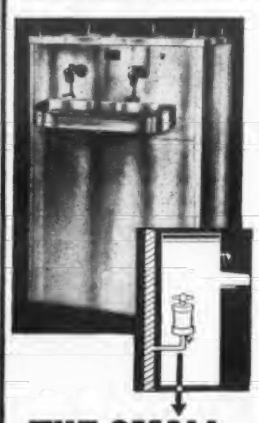
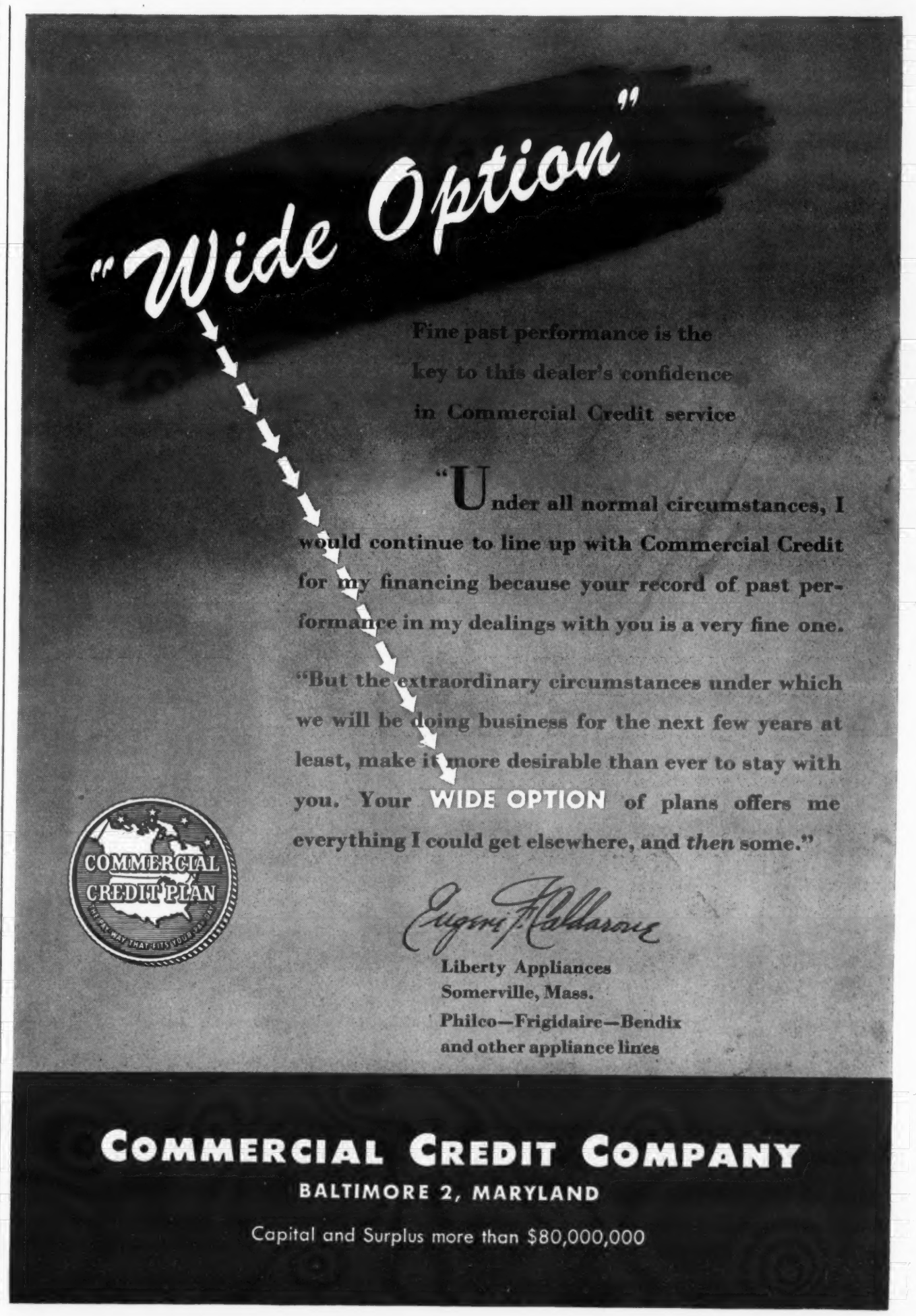


THE SMALL FILTER... SPARKLING WATER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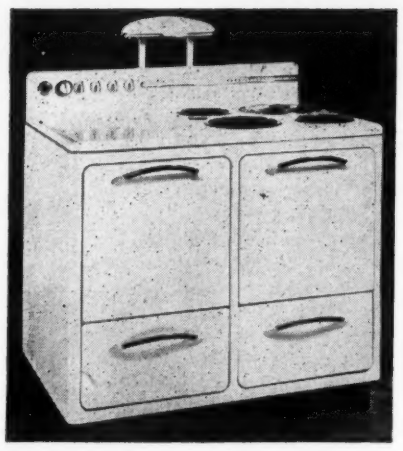


Westinghouse Electric Introduces New Range

MANSFIELD, Ohio — The new Champion Model D-64-46 electric range, equipped with three fast-heating Corox surface units, a deep-well economy cooker, and a large True-Temp oven, has been introduced by Westinghouse Electric Corp.

The Corox heating units, one 8 in. in diameter and two 6 in., have flush-fitting chromium ring design. In addition to an hydraulic thermostat, the new Westinghouse model has an electric timer which makes oven cooking completely automatic, the company claims. Once set for the cooking time desired, the device automatically turns on the oven, cooks at the desired temperature, and when the period is finished, turns off the oven.

At the rear of cooking surface level the control panel has a platform light and Tel-A-Glance switch knobs. The all-white porcelain enamel, chrome-trimmed cabinet also has three large, gliding drawers for utensils.

'Chromatone' Finish

LOS ANGELES — Chromatone, a paint said to approximate a natural chrome finish that is manufactured with a patented stabilizer claimed to give package stability and prevent darkening even after the can is opened, has been put on the market by the Alumatone Corp. here.

For indoor and outdoor application on a wide variety of hard surfaces such as metal, wood, and glass, Chromatone is claimed to be both a rust and heat resistant coating.

5 Gallon "Little Giant" Water Cooler Designed

GLEN RIDDLE, Pa. — "Little Giant," a new smaller electric water cooler especially designed for installation where drinking-water requirements are limited, has recently been completed here by the Sunroc Refrigeration Co. for distribution along with the larger Sunroc models.

The "Little Giant," which has a capacity of five gallons of cooled drinking water per hour, without precooling, is available in either the hermetically sealed or the conventional type unit.

Compressor Heat Utilized To Defrost Freezer Foods

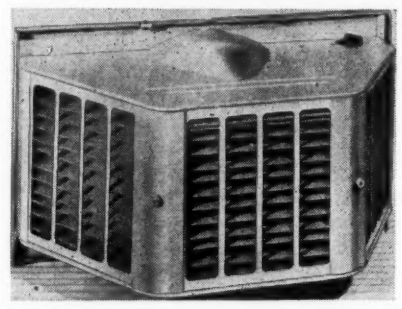
NEWTON, Iowa—Features of a new 6-cu. ft. home freezer recently announced by the Maytag Co. here include an attached adjustable drop-leaf which can be used as a breakfast or dinette unit and a special surface pan that utilizes heat from the compressor to defrost foods more speedily.

The dinette leaf, says the company, can be attached on either end or the front of the cabinet to suit any kitchen or breakfast room arrangement.

With an operating temperature of 0° F. the freezer is said to be capable of holding 300 lbs. of meat or 180 lbs. of fruit and vegetables, or an average of 240 lbs. of mixed packages. The under part of the lid has a stainless steel finish and a double gasket to prevent leakage of cold air. The entire lid is counter-balanced for ease in operation and will remain in position when up, the company said. Smooth with rounded corners, the inside of the container has a rust-proof stainless steel breaker strip at the top.

A hermetically sealed compressor is operated by a ⅛-hp. motor, easily accessible for servicing either through a large grille in the back of the cabinet, or through the opening for the defroster pan. The entire condensing unit is cooled by a fan.

The cabinet, which weighs approximately 355 lbs., has a white, high-baked synthetic enamel finish with a stainless steel trim. Company specifications report it to be 47½ in. long, 29 in. wide, and 32 in. tall.



Filt-R-Fan Provides Air Cleaning, Ventilation

INDIANAPOLIS — Nu-air, Filt-R-Fan, a combination filter and ventilating unit that can be installed in any standard window in less than five minutes, is designed to create a draftless circulation of clean air throughout the room in summer or winter, according to Meier Electric & Machine Co. here.

Resting securely on the window ledge, the Filt-R-Fan takes up no extra space in the room, claims the company. Power is supplied by plugging into any nearby light socket, and it is turned on or off like an electric light.

The case, enclosing the motor, fan, and filters, is a safe, compact unit made of steel and finished in white enamel which is baked on by infra-red rays, it is reported.

The Filt-R-Fan is equipped with three renewable spun glass filters that are said to remove dirt, soot, and many irritating impurities from incoming air. In many cases actual tests show, it is claimed, that the filters remove sufficient pollen from the air to bring relief and comfort to hayfever sufferers.

Easily removed, the filters can be replaced when the need arises without the services of the dealer. New filters can be stocked by the dealer, the company suggests, thereby developing a desirable replacement business for him.

Nu-air Filt-R-Fans are priced in accordance with OPA ceiling regulations at $49.07 retail, complete with cord and plug, and are sold at department stores, appliance stores, and other outlets.

ONE-PIECE COPPER SHELL Provides Greater Protection Against Leakage in the
IMPERIAL TORPEDO DEHYDRATOR*

Easy to refill — no bolts to unscrew, no flanges, springs or loose screens to remove before refilling. No soldering required after refilling.
Finger-type fine mesh monel metal screen, of welded construction, integral with outlet connection.
Fewer joints—assurance against leakage.
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One piece streamlined copper shell provides greater strength, easier flow of refrigerant.
Filled with Silica Gel.
Brazed — no soft solder joints that might loosen.
The TORPEDO

*YOUR BEST WEAPON IN THE WAR ON MOISTURE

Discarding old ideas of dehydrator design, Imperial pioneered the Torpedo—an entirely new dehydrator with a one-piece streamlined copper shell that provides greater strength, easier passage of refrigerant and has fewer joints. Area used for making joints is reduced to a minimum. No soft solder is used.

Another important advantage — the finger-type outlet screen — provides more efficient filtering, less chance of clogging, and easier removal for cleaning and refilling.

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Triethylene Glycol's Effectiveness, Cost In Air Conditioning Discussed by ASME

2 Speakers Cite Varied Uses of Chemical

NEW YORK CITY—Two important and newly developed uses of the chemical Triethylene Glycol were discussed here at a recent meeting of the Heat Transfer Division of the metropolitan Section of the American Society of Mechanical Engineers.

The two speakers, both consulting engineers for Air Research Associates, were F. M. Weaver, who discussed "Physical and Germicidal Properties of Triethylene Glycol as Used in Air Conditioning and Air Sterilization," and J. W. Spiselman, who spoke on "Heat Transfer in Modern Chemical Dehumidification."

The meeting was presided over by Dr. Harvey N. Davis, president, Stevens Institute of Technology, who, in introducing the speakers, emphasized the importance of heat transfer because of its close relation to almost every refrigeration problem. Dr. Davis said he had known of and watched with interest for 10 years or more the study in chemical dehumidification that was to be discussed by the speakers.

Mr. Weaver, a Stevens Polytechnic graduate in mechanical engineering, also emphasized the importance of heat transfer because of its prevalence in refrigeration work and traced the history of the removal of water vapor by means independent of temperature control. Calcium chloride, said the speaker, was first tried, but proved to be expensive as a hygroscopic agent; other agents were also tried with unsatisfactory results, particularly with respect to corrosion and crystallization.

He cited a list of ideal qualities that are desired in a dehumidifying agent, such as: non-corrosive, odorless, non-toxic, non-inflammable, a viscosity low enough not to solidify at any workable temperature, and stated that Triethylene Glycol had proved very satisfactory in meeting these requirements. It falls short of the ideal, said he, but proved to be better than many other agents that have been tested.

When referred to in this discussion, the speaker said, TG is used as a water solution of from 85 to 97%.

Due to the fact that TG has so many of the desirable qualities, such as being non-toxic, non-inflammable, non-corrosive, is readily available and inexpensive, it is well qualified as a dehumidifier, the speaker said.

TG was well established in that field some time before its germicidal properties became known, said Mr. Weaver, who recalled that one of the first revelations of such an attribute was discovered by scientists in air raid shelters in England during the war.

A great deal of data has been collected on this subject, asserted the speaker, which due to the stress of wartime activities has not been released but is expected before very long. The collection of the data and direction of continued studies is under the supervision of Dr. Robertson of the University of Chicago.

Tests are still being conducted that may develop other substances which will be even better than TG, concluded the speaker, but tests already made in manufacturing plants have proved conclusively that it will kill bacteria and furnish complete sterilization. Tests, he said, of viruses of common cold in test chambers where sufficient concentration was supplied left animals immune. Many tests have been made on monkeys and rats.

It was brought out in the discussion that the American Medical Association was considering TG as a sterilizer, but so far, has not approved its use in vapor form.

In answer to a question as to the relative merits of the violet ray and TG as a sterilizing agent, the speaker said in his opinion violet ray was effective in an unoccupied chamber, but for an auditorium with people, TG would be better.

It would, he asserted, have a marked effect on eliminating molds and organic matter inside ducts, but would not remove certain types of spores.

A number of tests have been made in manufacturing plants including one for penicillin where, the speaker continued, the germicidal effects of TG resulted in personnel absences being cut in half.

Mr. Spiselman, a chemical engineer and graduate of Columbia university, after referring to the study of chemical dehumidification that has been conducted over the last 10 years described by means of slide diagrams and mathematical formulae an adiabatic system using Triethylene Glycol as a dehumidifier.

It is always used, he said, with water in a 90 to 97% solution, but a series of extensive tests had been made to determine its corrosive effects on a number of metals such as tin, copper, aluminum, and only lead showed any serious effects.

The capital costs, said he, for substitution of a chemical agent may be about 10% higher, but the operating costs may be only one-half or one-third as compared with the use of refrigeration for moisture removal.

Triethylene Glycol is a clear solution, said the speaker, but as it absorbs impurities, naturally becomes discolored but remains quite stable.

Extensive tests, Mr. Spiselman said, in conclusion, have been made on its various operating characteristics, and these have all proved quite satisfactory.

Carrier Outlet Appoints Maurice Firestone V.P.

HARTFORD, Conn. — Maurice T. Firestone, formerly an executive with Carrier Corp., has been appointed executive vice president of the American Coal Co., announces Charles J. Sheketoff, president. American Coal has recently accepted the sole Hartford dealership in Carrier's line of air conditioning and refrigeration equipment.

A veteran of 21 years service with Carrier, Mr. Firestone had been manager of dealer distribution in the Philadelphia area and later the New York-New England areas. He was born in Leeds, England and later came to Canada where he studied engineering at McGill University, Montreal. Following this he emigrated to Boston, undertook the study of law at Northeastern University there, and likewise accepted a post in the laboratory of the General Electric Co. at Lynn, Mass. Mr. Firestone subsequently became associated with Holtzer-Cabot Electric Co.

Air Conditioning Scheduled For 20 Panama City Buildings

PANAMA CITY, Panama—During the next few months, air conditioning equipment will be installed in at least 20 buildings here, according to press reports. The buildings to be air conditioned include three theaters, a night club, several stores and offices, and probably the large hotel scheduled for construction, it was revealed.

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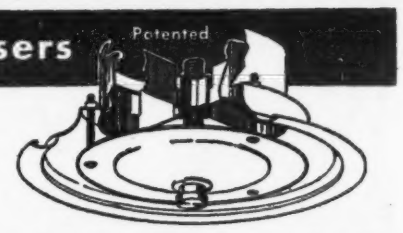
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The Complete Self-Service Store Era

What Are the Facts and the Possibilities In Merchandising Produce Under Refrigeration?

By Charles W. Hauck, Department of Rural Economics and Rural Sociology, Ohio Agricultural Experiment Station*

A Story Vital To Many Engaged In This Industry

Editor's Note: To those who are making and selling refrigeration equipment for the display and preservation of fresh foodstuffs in retail stores, we believe these published excerpts from the discussion by Mr. Hauck have a great deal of value. It is an unbiased statement of the "reasons why" of merchandising foods in this manner.

The Columbus supermarket experiences were reported some time ago in AIR CONDITIONING & REFRIGERATION NEWS, but this discussion is a more detailed analysis of the whole subject of merchandising pre-packaged fresh produce displayed in refrigerated counters.

The market research man always welcomes opportunities to do his work in a commercial atmosphere. He prefers to conduct his investigations in surroundings and under conditions that are actual and realistic rather than simulated, in surroundings that bring the worker to grips with genuine over-the-counter marketing problems right in the market place, instead of under more or less artificial conditions in the laboratory.

It was with considerable pleasure, therefore, that we in the Ohio Agricultural Experiment Station were able to work out mutually satisfactory arrangements with the Great Atlantic & Pacific Tea Co. in Columbus for a market research project in which together we would investigate the possibilities of reducing wastes and losses in the distribution of fresh fruits and vegetables in their Columbus operations.

The project has been underway about a year. Each party to the agreement is putting in about $5,000 annually for this purpose. We have just scratched the surface in our studies; therefore we are hoping to renew and continue the project for some time.

The company operates 10 super markets in Columbus and, in addition, serves the produce departments in 64 retail stores in surrounding towns from its warehouse in that city. Its entire produce operation in that unit has been thrown open to this study.

The amount of waste resulting from conventional practices in the handling and distribution of perishable produce is shocking. It has startled me to find authorities agreeing that about *one fourth* of the food we produce never is converted into human nourishment but is discarded or wasted somewhere along the line.

Existence of marked percentages of waste is one of the most critical problems associated with the distribution of foods, especially perishables. Some of these wastes occur on farms, some in packing houses, some in processing, some in transportation and storage, some in wholesale warehouses, some in retail stores, some in the homes of consumers and in public eating places.

Rough percentage estimates made by William Kling of the War Food Administration add up to these figures: deciduous fruits 26%, potatoes 28%; tomatoes and citrus fruits 33%, leafy, green, and yellow vegetables 43%.

What Waste Means

These estimates indicate that more food is wasted than was consumed annually by our armed forces and lend-lease shipments combined during the war. It has been pointed out that if the estimates are reliable, we waste enough to feed the five New England States of Maine, New Hampshire, Vermont, Massachusetts, and Rhode Island, and that we waste enough in the United States to feed the hunger-ridden countries of Belgium, Holland, Greece, and Czechoslovakia.

These figures, I repeat, are a shocking indictment. We have set out to do what we can to reduce them, to find ways to lower the wastes and losses in the marketing of fruits and vegetables, and at the same time to prolong the original crisp, fresh quality of the produce.

Our records thus far have to do mainly with the wholesale and retail functions after the produce arrives in the consuming market. We have made some observations of practices at shipping points and have made a few experimental shipments from points in northern Ohio and as far away as Tennessee and South Carolina, but our attention to date is focused primarily on "after-arrival" market operations.

Later we expect to give more study to operations in important shipping areas, for opportunities for improvement there are encouraging. We plan to devote considerable attention to that phase of the problem in 1946.

Though the work we are doing deals with the broad questions of waste in distribution and retention of quality in fresh fruits and vegetables, the more spectacular and conspicuous phases having to do with pre-packaging in consumer units have caused the project to be known popularly as "The Columbus Pre-packaging Experiment."

The produce warehouse and the 10 retail stores operated by A & P in Columbus are serving as a sort of pilot plant for central mechanized trimming and packaging of fresh fruits and vegetables in transparent, sealed consumer units and their sale from open-top, self-service, refrigerated cases.

Packed in Air Cooled Room

In the main, the merchandise is received at the warehouse in the usual way from local and distant sources packed in conventional shipping containers. A mechanized, air conditioned packing room and a cold storage room have been set up in the warehouse and here the produce is removed from the original packages, is subjected to whatever final grading and trimming may be required, and is packed in consumer units, either shallow paperboard trays holding a pound or two, or U-boards, or cellophane bags.

The bags are then sealed and the trays and U-boards are over-wrapped and sealed in moisture-proof cellophane and stored briefly at about 40° F. while awaiting shipment to the stores. Each package is automatically labeled, coded with the packing date, and price-marked when sealed.

This venture began early in 1944 when the produce department in one of the stores operated by the company in Columbus was converted to refrigerated self-service. Since then all 10 produce departments in Columbus have been similarly converted and all 10 stores are now being supplied with pre-packaged fresh fruits and vegetables.

Temperature in the self-service cases despite their open-tops is usually maintained at about 40 to 43° F. at the level where the packages are displayed. Reserve stocks of packaged goods are held at 37 to 38° F. in large storage chambers in the base of the cabinets.

The only attention required is to keep the displays neatly arranged and to replenish them occasionally from the reserve stock, seeing that produce moves in the order in which it was packed.

Increasing 'Pay Load'

One of our objectives is to find ways to increase the "pay load" as it were, or in other words to reduce shipping weight and handling expenses of a given amount of edible, salable produce. Another goal is to develop the use of packaging and refrigeration as means of conserving food and maintaining its quality rather than as a mere sales convenience and inducement.

Careful records in one super market a year ago revealed that the necessary trimming, handling, and reconditioning in the convential retail produce department was resulting in losses and damage like these: beets, 36.1% by weight, cauliflower 32.3%, head lettuce 20.4%, broccoli 14.8%, and thus on down to the so-called hard-ware items like potatoes, dry onions, and citrus fruits which showed losses of less than 1%.

Repeated in mid-summer when temperatures were higher and the produce more perishable, since it included items such as peaches and berries and melons, our observations revealed losses even higher. The average for both seasons was somewhere around 30%.

In contrast, in retail stores handling pre-packaged perishables under refrigeration losses have been negligible. No trimming or reconditioning is required in the stores, and very little of the produce has to be marked down or thrown out. In the packing room the trimming and preparation processes eliminate on the average about 15% by weight, so it is seen that wastes or weight losses after the produce arrives in the city warehouse have been reduced about one half.

Facts About Lettuce

Opportunities for increasing the "pay load" may be illustrated by head lettuce. This item is practically a year 'round offering. It comes to market from western sources packed in crates holding on the average five dozen heads with snow ice between the layers of heads in the crates and weighing in the aggregate about 90 pounds per crate.

In the two weeks we were observing this operation last winter, this store received 38 crates of head lettuce with gross shipping weight of 3,394 pounds. Of this amount, tare (crate, liner, and ice) was 797 pounds or 23.5% and loss from trimming and damage in displaying and reconditioning the lettuce was 531 pounds or 15.6%. The balance of 2,066 pounds or 60.9% was salable lettuce.

Obviously, the entire cost of handling and distributing the lettuce had to be borne by approximately 61 pounds of each 100 pounds shipped. Pre-packaging has enabled us to raise that to about 75 pounds in 100, and has eliminated weight losses almost completely after arrival at the retail stores.

The company is enthusiastic about the results of the experiment thus far. Operations are being expanded as rapidly as possible. Though costs have not yet been brought down to a point where the operations are showing an immediate profit, nevertheless, it is fully expected that this will take place as soon as sufficient volume has been attained and the packing operations have been streamlined.

It is our hope and expectation that the extra costs will be met by savings at various points and by increases in volume of sales.

One source of savings is the elimination or reduction of waste. As unnecessary weight or bulk is reduced, handling costs decline. Freight and hauling expenses are reduced. Pre-packaging permits retail produce departments to be operated with less labor than before. When some of the packing is done at shipping points rather than after arrival in the terminal warehouse even greater economies should be possible.

Perhaps the principal origin of savings lies in the extension of the "shelf life" of these perishables, which means that retention of the peak quality and appearance of most items has been lengthened to five days and even longer.

In fact, on many items we have found it is possible to maintain this so-called shelf-life for two or three weeks. This means that every pound of merchandise delivered to the retail store is salable.

It means that the retailer does not have to throw out as garbage any part of what he pays for. It means that his costs and profit can be distributed over the entire amount of produce purchased rather than

(Concluded on next page)

*Address before the Vegetable Growers Association of America and the Ohio Vegetable and Potato Growers Association.

PERFECOLD KEYNOTES REFRIGERATION PROGRESS

It is a far cry from the damp, inefficient ice boxes of the last decade to the compact, self-contained, efficient refrigeration units of today. Yes, the rapid strides made in the many branches of science have been matched by the refrigeration industry. Perfecold, with "Balanced Refrigeration," keynotes the advancement of the science of keeping good food better.

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Making the Term 'Fresh' Really Mean Something

A customer in one of the Columbus, Ohio, stores of the A & P chain in which experiments with pre-packaged refrigerated produce were made, selects an item from a serve-self refrigerated produce case.

How Refrigerated Produce Displays Win Favor of Public, Store Managers

(Concluded from preceding page)

having the burden borne by 50, 60, or 70% of the lot.

Though he still seeks to dispose of packaged perishables within 24 hours as before, to maintain a rapid turnover rate and to insure delivery of fresh produce to his customers, nevertheless he welcomes the added margin of safety.

It may be that considerable premium may eventually be attained for certain items sold this way. Consumers may be willing and probably will be willing to pay more, since they are getting better quality and better service.

To date, however, every item with the exception of several experimental lots has been sold for exactly the same price prevailing for the same item unpackaged at other local A & P stores on the same day.

It has been our belief from the start that this should bring better produce to the consumer at no greater cost, it should return as much or more to the producer as before, and at the same time permit the distributor to maintain his profit position. It remains our belief that the savings will pay the added cost.

How Customers React

This new method of offering fresh fruits and vegetables has met with very encouraging consumer acceptance. Sales have increased sharply in the stores where the conversion has been made, and an inquiry last December among several hundred patrons of these stores revealed that they were almost unanimously in favor of this type of merchandising. About nine out of ten stated that they preferred to buy their fruits and vegetables this way rather than from the old-style bulk displays.

A few spectacular instances will illustrate what has happened to sales. In one of these stores before conversion five crates of head lettuce on the average were required to supply the Friday and Saturday business each week.

Immediately after conversion to refrigerated self-service, sales on Friday and Saturday required 14 crates of pre-packaged head lettuce, or almost a three-fold increase. This greater volume has been maintained for many months.

When we abandoned the customary method of merchandising sweet-corn in the bulk and began to husk it and package it in cellophane-covered trays with five or six ears to the tray, we found that sales of sweet corn increased several hundred per cent. The same was true of tomatoes and various other standard items. Incidentally, the grower was paid a premium of five cents per dozen ears of corn.

We found also that topped carrots pre-packaged in two pound units quickly displaced bunched carrots. Though topped carrots formerly had been practically unsalable in this market so long as consumers had opportunity to buy bunched carrots the company now sells 2,500-3,000 pounds of pre-packaged topped carrots from these refrigerated cases in one week, or more than the company had sold all last year in its Columbus stores.

Sales of lima beans went up about 30 times when we shelled them and offered them in transparent consumer units. Consumers were willing to pay a substantial premium for shelled limas offered this way. Shelled beans offered at 49 cents a pound far outsold unshelled beans priced at 18 cents a pound.

Our experiences with vine-ripened strawberries and tree-ripened peaches were very encouraging. By using consumer unit packages we were able to bring these soft fruits into Columbus in good condition from distant points by rail and truck, and we found consumers willing to buy them in much larger quantities than the standard pack and willing to pay a premium for them.

New Delicacies Enjoyed

These increases in volume promise substantial gains to producers by way of expanded outlets. For the first time city consumers are able to enjoy fresh, succulent sweet corn, tree-ripened peaches, fresh green lima beans without the tedious and difficult task of shelling them and disposing of the pods. The potential demand is there; as we find ways to satisfy it, growers can expect it to be reflected in greater demand also at the farm.

Consumers offer various reasons for preferring to buy produce this way. One of the most important is sanitation. The goods have not been handled by prior customers. There is no litter in the bins or on the floors.

Patrons seem to like, too, the convenience and ease with which the produce can be handled in the household refrigerator and in the kitchen. The housewife finds that garbage disposal becomes a minor problem. Many patrons emphasize the advantage of being able to shop unhindered by other patrons. They do not have to wait to be served by clerks. Their shopping can be completed more rapidly. The produce is visible and they have discovered there is little chance of poor produce being concealed in the packages.

They emphasize that the produce they take home not only is better than when it is selected from open bins, but it keeps longer and permits the housewife to buy in larger quantities and therefore to shop less frequently.

Managers Like It

The retail store managers like pre-packaged and refrigerated displays for these reasons:

(1) longer shelf life;
(2) less clerk hire, less skill, less supervision required;
(3) encourages and expedites self-service;
(4) permits constant maintenance of displays;
(5) reduces garbage disposal;
(6) increases "pay load";
(7) permits cleaner store with less effort; and
(8) attracts and holds patronage.

The modern trend toward pre-packaging of foods in consumer units is apparent to any observer. Housewives are gradually being relieved of more and more time-consuming drudgery in food preparation. The problem of garbage disposal is being simplified.

Fresh fruits and vegetables and red meats are among the last food items to be offered in consumer units. As this trend progresses it is converting our food stores more and more to self-service.

We have the conviction, however, that with fresh fruits and vegetables, pre-packaging is not enough. We are convinced that pre-packaging must go hand in hand with refrigeration, though it may be that as good results might be attained by proper use of storage refrigerators as by display refrigerators in the retail store.

On some items it may make little difference whether the goods are refrigerated in the retail store or not, but most commodities require refrigeration for adequate shelf life.

Refrigeration Is Vital

We have had some unpleasant experiences with such goods as tree-ripened peaches wrapped in cellophane and not refrigerated. High temperatures caused rapid deterioration of the peaches.

This deterioration was not always apparent to the eye. The peaches looked good but did not taste good. We had to throw them away very soon, though identical peaches, wrapped and handled under favorable temperatures were in excellent condition for several weeks.

Shelled lima beans went bad rather rapidly if not refrigerated. If not wrapped and properly refrigerated, they quickly become spotted and develop slime and mold.

We are sure that pre-cooling at the source and adequate refrigeration at all stages thereafter will go far to reduce waste, whether the produce is packaged in consumer units or in conventional shipping containers.

Much more pre-cooling equipment is needed in most shipping areas. But our experience thus far indicates that sealing the produce in moisture-proof cellophane, plus refrigeration, yields better results than either alone in retaining the quality and vitamin content and nutritional value.

The package prevents mechanical injury and dehydration and refrigeration retards the normal ripening processes.

Some are of the opinion that this development will play into the hands of the large chain operators. It is said that large companies are the only ones with enough capital to permit the required investments.

It is said that the small jobber and retailer will be forced to continue in the old way while their large competitors are in a position to secure whatever advantages may accrue from these new developments of pre-packaging and refrigeration.

I do not share this opinion. It may well be that the large concerns will be the first to adopt these new methods if they continue to prove promising. I am sure, however, that the alert independent wholesaler and retailer will be able eventually to share in these advantages.

May Supply Display Cases

I know of one large shipper and distributor in the northwest who expects to undertake pre-packaging, some of it in packing houses on the Pacific Coast and some after arrival in consuming markets, and to supply a number of these pre-packaged items to his customers, all of them independent retailers.

This distributor is considering buying the necessary refrigerators, leasing them to the retailers, and keeping them stocked. Surely the ingenuity of our independent merchants is such that they may be expected to adapt themselves to new methods (as soon as they are convinced that they are better methods).

More work needs to be done with pre-cooling and refrigeration, I am sure, if this new development is to displace older methods. We shall have to insure that the field heat is removed from the produce very soon after harvest and that the produce is protected by proper temperatures thereafter.

More exploration is needed into the possibilities of pre-packaging some of these items at distant shipping points. I know of some plans to investigate the potentialities of pre-packaging at the source, some of which will be carried on in collaboration with us in Columbus, some independently.

Despite the possibility of transporting perishables by air, I remain convinced that the bulk of our movement of perishables will continue for a long time to be handled by railroad and motor truck. At the same time, the potentialities of air transport cannot be dismissed. Savings in waste by removal of inedible portions of produce at the source should enable air transport to compete more closely with the conventional methods of rail and truck hauling.

Methods and equipment need to be developed to convert trimmings into useful products and to provide some income from what is now an expense and a disposal problem.

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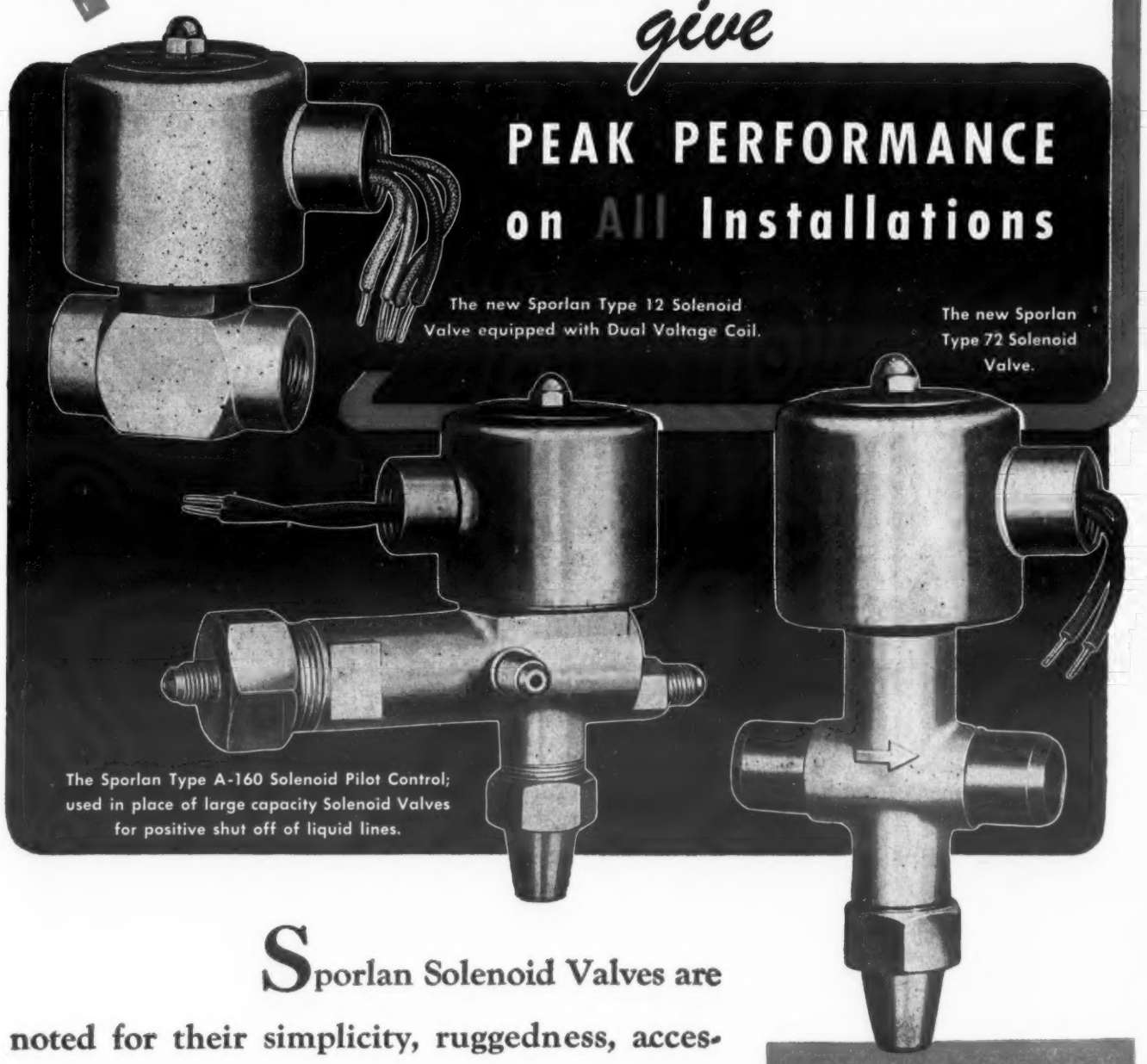

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* * *

Henry Valve Names Law, Stamps Field Engineers

CHICAGO—Henry Valve Co. announces the appointment of Harold F. Stamps and John E. Law as field engineers. Both are veterans.

Mr. Stamps, who will cover territory south and east of Chicago, was formerly a Chief Petty Officer in the 13th Battalion Sea-Bees. Previous to his entry in the service, he was a design engineer for a Detroit architect and engineer, and for several years he was employed as a field engineer for a manufacturer of automatic control equipment.

During the war, Mr. Law was a captain in the 25th Infantry Division.

He attended Iowa State University at Ames, where he received a Bachelor of Science Degree in Engineering. Mr. Law will cover territory north and west of Chicago.

Refrigeration Problems
And Their Solution

By P. B. Reed

For Service and Installation Engineers

Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

Service Chart for System Using Automatic Expansion Valve With Temperature Control

(Concluded from the April 15 issue)

Symptoms	Possible Causes	Remedy
CONDENSING UNIT RUNS TOO LONG, OR CONTINUOUSLY.	System low on refrigerant.	Find leak, repair it, and add refrigerant.
Evaporator defrosted or not cold enough. Suction line warm. Suction and discharge pressures low.	Strainer, dehydrator, receiver valve, or fitting in liquid line partially stopped. Liquid line kinked.	Clean, repair, or replace the part causing the trouble.
	Stoppage in refrigerant valve, due to ice, dirt, wax.	Remove valve and clean, or replace it. Put on liquid line strainer.
	Finned evaporator iced up.	Defrost and reset control.
	Excessive pressure drop in liquid line. Tubing too long or too small.	Run liquid line of larger tubing or add another tube.
	Evaporator too far above condensing unit.	Move condensing unit to higher location or increase discharge pressure by reducing water or air to condenser.
	Excessive pressure drop across the evaporator.	Replace evaporator or possibly divide it into parallel circuits to reduce drop.
	Expansion valve loading spring broken.	Repair or replace valve.
	Ice in body bellows of valve.	Remove ice and wash out bellows with alcohol. Add a teaspoonful of glycerine.
	Expansion valve set too low.	Readjust valve.
Suction line warm. Suction pressure high. Discharge pressure low.	Compressor inefficient; leaking suction and/or discharge valves, worn rings, excessive clearance volume.	Repair or replace the compressor.

George Appointed Deepfreeze Philadelphia Sales Manager

NORTH CHICAGO, Ill.—J. H. George, formerly in the sales department of Westinghouse Electric Co., has been appointed sales manager of the Philadelphia district for Deepfreeze home freezers by the Deepfreeze division, Motor Products Corp. here, announces F. F. Duggan, general sales manager.

Mr. George has had many years of experience in the electrical appliance field, including utility merchandising.

G. A. Churchill, B. F. Werb To Head Perfex Branches

MILWAUKEE—The appointment of Gil A. Churchill as manager of the Chicago branch, and B. F. "Dutch" Werb as manager of the newly formed Milwaukee branch, has been announced by Perfex Corp. here.

Mr. Churchill has been associated with the controls industry since 1925, having worked in the manufacturing, sales, and service phases of the industry. He joined Perfex in 1936 as a sales engineer in the Chicago branch, and left the organization in 1942. He rejoined Perfex last June.

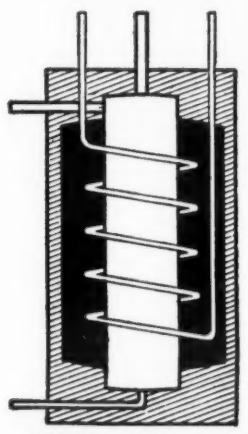
Mr. Werb has been affiliated with the industry for 20 years, having held various positions with Underwriters Laboratories, Mercoid Corp., National Radiator Corp., and Oil Devices, before joining Perfex as a sales engineer in 1940.

Revere Output Raised 80%

BALTIMORE—Output at Revere Copper & Brass Co., Inc., here has risen approximately 80% over prewar volume now that reconversion is practically completed, Donald Dallas, president, told stockholders recently.

Although earnings for the first quarter of 1946 will not be good, Mr. Dallas pointed out that wages are now fixed for a year, and as a result of the price relief granted by OPA, better earnings are expected.

KRAMER Products



PANEL TYPE UNIT COOLER

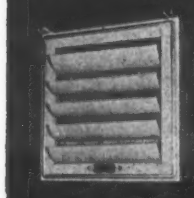
PATENT APPLIED FOR

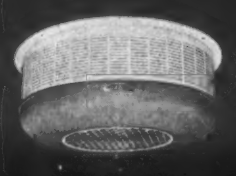
The THERMOBANK

●With the THERMOBANK a zero degree system is just as automatic as a 40 degree system — in fact more so.

It never needs to be defrosted because it defrosts itself automatically without the use of brine sprays, water sprays or electric heaters.

COOLMASTER





RADIAL UNIT COOLER

Write for Bulletin TV345 N

AIR COOLED CONDENSER

FLOOR TYPE UNIT COOLER

KRAMER-TRENTON CO. Trenton, N. J.

Catalog R 142-N Sent on Request

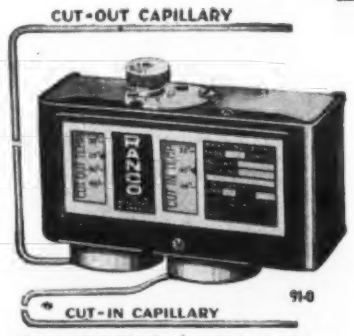
ALWAYS BEST CARE IN FILLING YOUR ORDERS FOR REFRIGERATION PARTS & SUPPLIES

Write for Catalog

THE HARRY ALTER CO.

1728 S. Michigan Ave. Chicago, 16, Ill. | Two Big Warehouses to Serve You | 134 Lafayette St. New York, 13, N.Y.

Dependable Protection For Your Customer's Perishables



Type 91-0 Exclusive Interlocking Two Temperature Control.

The Ranco Type 91-0, Two Temperature Control will give dependable protection to your customer's perishable merchandise. For Walk-in Coolers, display cases and florists boxes. It assures uniform fixture temperatures—uniform high relative humidity—and complete automatic defrosting of the coil regardless of weather or load conditions, or cold location of the compressor. Can be used on single or multiple unit systems. For natural or forced convection units.

Ask Your Jobber About *Ranco* Controls

Ranco Inc. COLUMBUS 1, OHIO

'Quizmasters' Who Answered Some Posers

These were the "Information Please" experts at the Canadian R.S.E.S. meeting. Left to right: Paul Reed, Perfex Corp.; G. E. Graff, Ranco, Inc.; Paul Domke, Mueller Brass Co.; and Ward Stoner, Ben-Hur Mfg. Co.

* * *

Some Current Questions on Refrigeration Service Get Answered by 'Board of Experts'

TORONTO, Ontario — Numerous questions pertaining to all phases of the refrigeration industry were discussed by the board of experts assembled for the "Information Please" sessions conducted by H. S. Parish at the annual conference of the Interprovincial Refrigeration Service Engineers Society here. Herewith are a few of the questions and answers.

Pressure Drop

One service man asked the question: What percentage of capacity reduction would result if the suction line on a 1½ ton system operating at 0° F. were reduced from 1⅛ in. o.d. to ⅝ in.?

Paul Reed of Perfex Corp., a member of the panel, replied: "Such a change would probably result in a 50% reduction in the capacity of the unit. This change would be particularly bad on a low temperature system. It is remarkable how much capacity can be lost by pressure drop on low temperature systems."

Use of Steam Cleaning

Question: "Is it all right to use steam to clean cooling units?"

Answer (by Mr. Parish): "Steam should be handled with care. Live steam on refrigeration service will boost the pressure tremendously. If the system is equipped with a shut-off valve so the refrigerant could be pumped down out of the coil, it probably would be okay to use steam."

Paul Domke of Mueller Brass Co. commented that in the past steam had been used to clean ice cream freezers. These units, however, were fitted with relief valves set to operate at 200 or 300 pounds pressure, which would avoid any human error, he said.

Condensing Unit Location

Question: "Is there any disadvantage in locating the condensing unit at a level higher than the cooling in a system operating at normal or low temperatures with 'Freon' or methyl chloride?"

Answer by Ward Stoner of Ben-Hur Mfg. Co.: "I don't believe there would be any disadvantage if the system were properly designed. I've built both types myself and found that it will work either way without any advantage or disadvantage."

Freezer Temperature Loss

Another question: "Will a reach-in type home freezer permit too great a rise in temperature when the door is opened?"

Answer by E. C. Graff of Ranco, Inc.: "Nearly all upright home freezers have an inner door on the shelves to prevent heat loss. The upright type is most accessible and has many advantages over the chest type, but the latter is more efficient. It is cheaper to design an upright type. The household refrigerator manufacturer, for example, can use the same household cabinet dies for an upright home freezer."

Fin Coil Feeding

Question: "Should a fin coil be fed at the bottom or top?"

Answer by Mr. Stoner: "It could be worked either way. With bottom-feed the coil might possibly be more efficient due to flooding, but it is a little harder to get uniform cycling with bottom-feed."

Kenosha Appliance, Service Dealers Form Group to Foster Higher Trade Ethics

KENOSHA, Wis.—To foster the highest code of business ethics in the field is the aim of the Kenosha Appliance Sales & Service Association, a recently organized group of electrical appliance and service dealers who presented in a full page newspaper advertisement here the business principles to which they will adhere.

Only dealers subscribing to its practices are admitted to the organization, such practices being: furtherance of the best interests of both dealers and public, the promotion of harmonious relationships among the dealers, establishment of the public's good will toward them, establishment of fair and uniform rates and standards of service and the abolition of injurious practices, protection of the public from appliance sales or service by itinerant or irresponsible persons, the establishment of a program for apprenticeship training, and the settlement of other matters of mutual concern.

Services shall be performed by members in a satisfactory, workmanlike manner, without wilful misrepresentation of services rendered or merchandise for sale, according to the code.

Used merchandise shall not be sold by members without a statement on the tag and sales slip, or other written evidence, expressly signifying the merchandise as used.

Defamation of character of other members, organizations, or individuals by untruthful statements as to integrity, ability, credit standing, or quality and reliability of merchandise or services, by any member shall be unethical.

The terms of any manufacturer's warranty shall always be observed by members of the Kenosha Association.

Selling at less than manufacturer's established retail prices in customer sales by members shall not be permitted.

It shall be unethical for members to permit agents or salesmen to share commissions with any customer or make part or all of any customer's down payment under the Code.

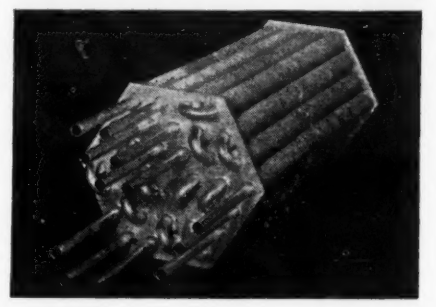
MEMBERSHIP REQUIREMENTS

Membership may be granted to "any bona-fide, full-time retail appliance dealer or service firm here," according to the new organization's code.

Names of 17 members appeared in the advertisement under the association's signature.

H. J. Long, of the Long Refrigerator Sales & Service Co., heads the group. Roger Starnes, of the Bain Hardware Co., is vice president; Gaspar M. Turk, of Turk Refrigerator Sales & Service, is secretary; Harold Clark, of Clark Refrigerator Service, is treasurer; and Victor Joernt, of Radio Electrical Appliance Co., Clyde Stoneman, of Stoneman's, and William Isetts, of Isetts Appliances are directors.

ROME-CONDENSER
★ Jointless Type ★



Rome Water Cooled Condenser Coils insure trouble-free condensing equipment. Used by leading compressor manufacturers.

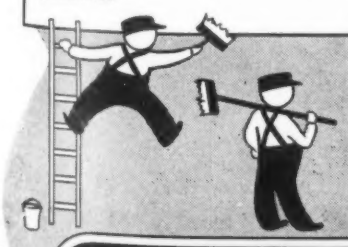
ROME-TURNEY
RADIATOR COMPANY
222 CANAL ST.
ROME, N. Y.

HEAT TRANSFER EQUIPMENT
MARLO
COIL COMPANY
SAINT LOUIS, MISSOURI

Double Feature!
TODAY AND EVERY DAY

THAWZONE
PATENTED
The PIONEER FLUID DEHYDRANT

1. New or reconditioned units, before starting up, should have THAWZONE to destroy those tiny amounts of moisture that even careful workmanship cannot always avoid, and to prevent future trouble.
2. Systems now operating perfectly need THAWZONE now to prevent future moisture. It's economical insurance.
3. Units kicking up from moisture have been treated with THAWZONE by engineers for eight years. It's still good practice.



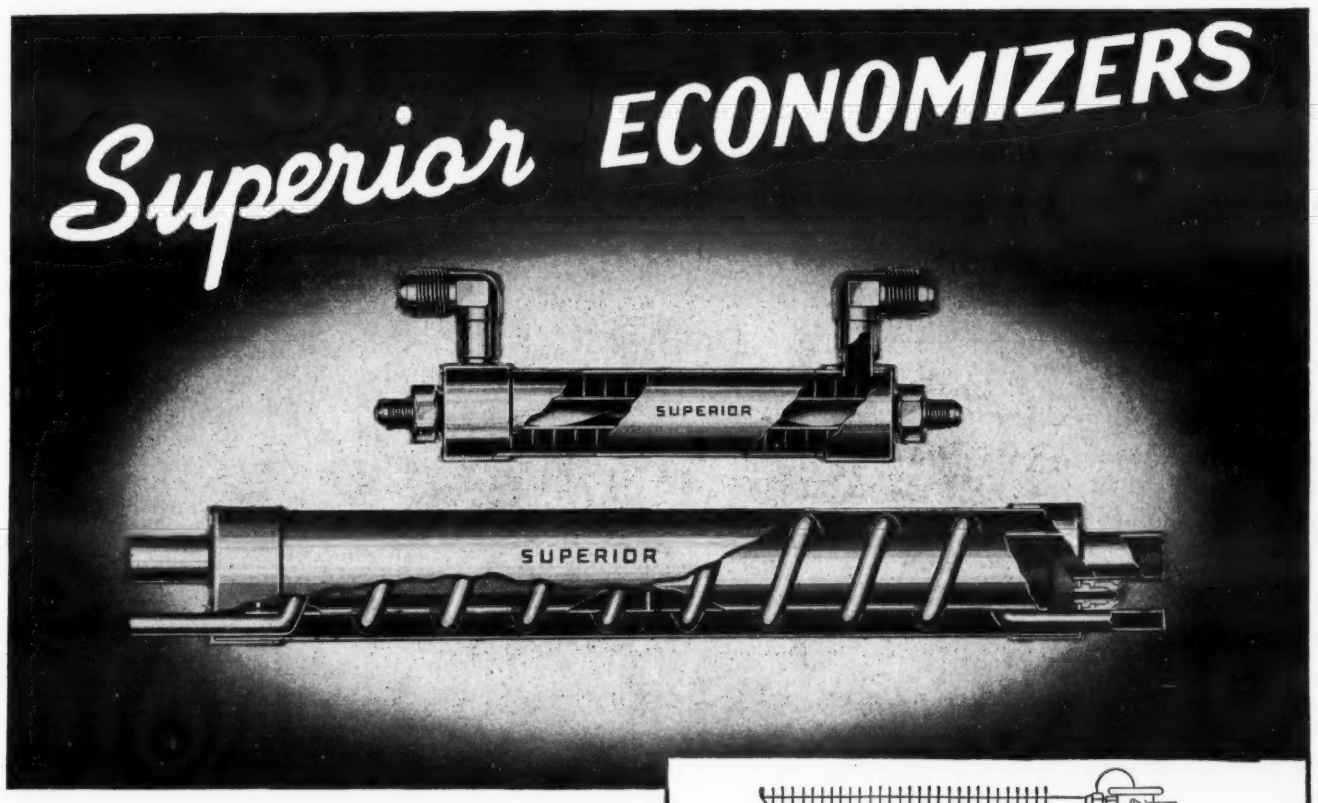
TRACE
REFRIGERANT LEAK DETECTOR

Add TRACE at any time to any refrigeration unit containing any refrigerant to:
1. Find present leaks.
2. Spot future leaks.
3. Locate the source (leaks) of moisture troubles.

TRACE has that vivid, stay-red color. It's manufactured by chemists with long experience in refrigeration, who understand the special and exacting requirements that must be met by any additive to a refrigeration system.

HIGHSIDE CHEMICALS CO.
195 VERONA AVE. NEWARK 4, N. J.

Superior ECONOMIZERS



★ Increase overall capacity.

★ Reduce running time up to 20%

. . . prevent sweating and frosting of suction lines, as well as oil slugging, and bring "on-the-line" jobs within the normal cycle range.

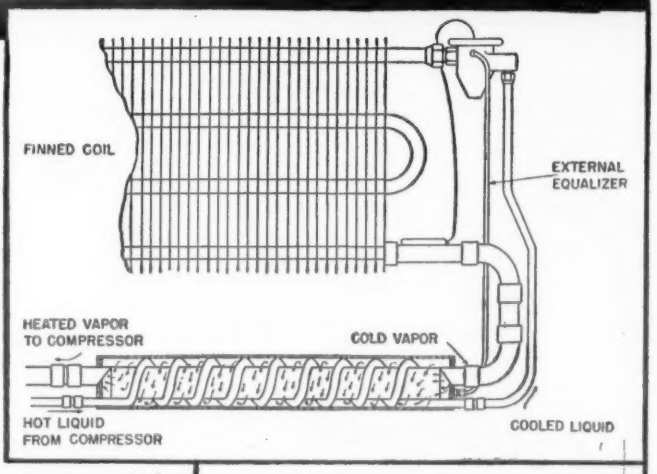
"Fractional Tonnage" ECONOMIZERS

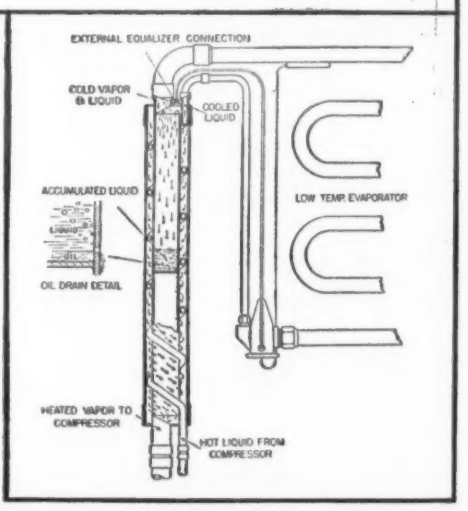
. . . are no longer considered "unnecessary gadgets." Data now available substantiates all claims for appreciable increase in overall capacity. One should be installed in each evaporator circuit of every commercial and industrial refrigerating system. Pressure drop is negligible . . . capacity per unit size is extremely high . . . all joints are silver soldered.

"Hy-K" ECONOMIZER-ACCUMULATORS

. . . have high ratio of prime to secondary, and liquid to vapor surface . . . Positive vapor contact with all surfaces . . . Maximum capacity per unit size.

"Hy-K" Economizer-Accumulators are equally suited for use in high, medium or low temperature systems.





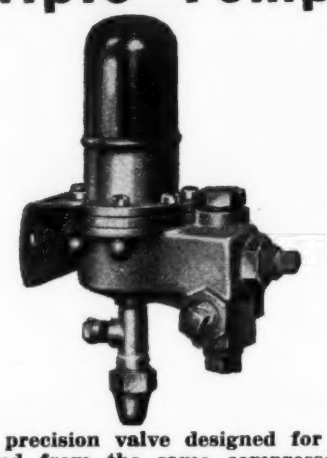
If you haven't a copy of the new Superior Catalog R-2, request one today. No. 129

SUPERIOR VALVE & FITTINGS COMPANY
PITTSBURGH 26, PENNSYLVANIA
OFFICES IN PRINCIPAL CITIES • STOCKS: CHICAGO (6) • LOS ANGELES (15) • JOBBERS EVERYWHERE

SNAP ACTION VALVES for Multiple Temperature

Adjustable from 20" of vacuum to 63 lbs. pressure

Proven in Performance



Differential 7 lbs. minimum to 29 lbs. max.

Free from bellows strain

Here is a marvelous precision valve designed for systems with more than one coil, operated from the same compressor. Any variety of units such as ice cream cabinets, soda fountains, back bars, water coolers, candy counters, beer coils, storage rooms, etc., may be connected to a single compressor unit by the use of an Aminco Snap Action Valve.

This means more today than ever before, what with the difficulties experienced by the serviceman in satisfying his trade with "too little" material for the work to be done.

Aminco Snap Action Valves are not an experiment. They have proven their worth in years of actual service and are doubly useful under today's conditions when one piece of equipment must do the work of several.

May be used with any refrigerant except ammonia. For flooded as well as dry gas types or any combination of either.

As always, our company is definitely interested in the survival of the refrigeration industry and is doing its utmost to cooperate with established operators.

AMERICAN INJECTOR COMPANY
1491 Fourteenth Avenue DETROIT 16, MICHIGAN
Van D. Clothier, 1015 E. 16th St., Los Angeles, Calif.
George I. Boone & Son, 739 G. M. Bldg., 1775 Broadway, New York 19, N. Y.
William H. Cody, 2nd Unit, 10th Floor, Santa Fe Bldg., Dallas, Texas
J. C. Battles, 504 Bondi Bldg., Galesburg, Ill.
Export: Borg-Warner International Corp., 310 S. Michigan Ave., Chicago, Ill.

Connor Redesigns Line Of Air Diffusers

NEW YORK CITY—In order that the volume control damper may be set for the required amount of air without danger of a subsequent change which might upset the balance of the entire system, W. B. Conner Engineering Corp. has added a tamper-proof cap to the base of the damper control screw in the standard Type "K" (supply air only) Kno-Draft adjustable air diffuser, it is reported.

Another advantage claimed for several types of Kno-Draft diffusers is the adjustable lower cone which may be raised or lowered to vary the angle of air discharge, thereby insuring uniform performance for different ceiling heights.

Further application of this feature, says the company, is that chilled air can be discharged parallel to the ceiling during the cooling season and heated air downward during heating season preventing stratification.

Cinch Buys Electrical Firm

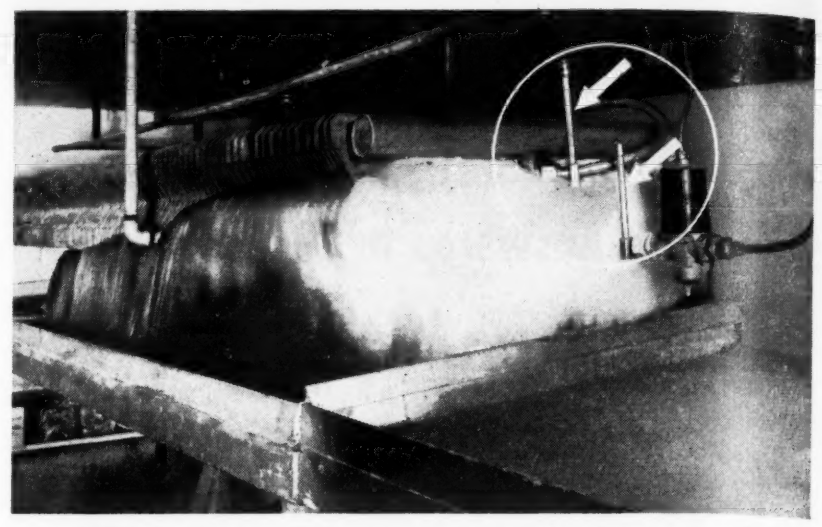
CHICAGO—The Howard B. Jones Co., manufacturer of electrical connecting devices, has recently been purchased by the Cinch Mfg. Corp., announces Lester W. Tarr, president of Cinch. The newly acquired plant, to be known as the Howard B. Jones division, will continue to manufacture Jones plugs, sockets, terminal strips, fuse mounts, etc.

General manager of the new division will be Cary Wilson, vice president of Cinch Mfg. Corp.

Servicing Commercial Refrigeration Systems

Instalment No. 6

19—Check Evaporator Temperatures

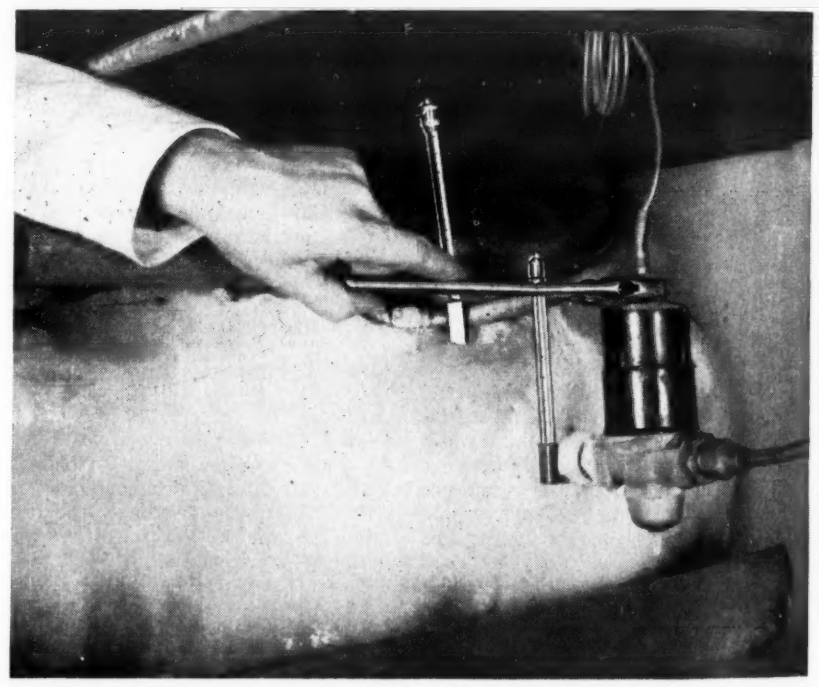


The service operator cannot see inside the evaporator, but he can use the thermometers to tell how full it is, because the more refrigerant that is in the coil, the closer the inlet and outlet temperatures will be.

Readings should be as close together as possible, the only limit being that if the evaporator is too full the violent boiling of the refrigerant will spill some over into the suction line and cause it to frost. Always scrape off the frost so the thermometer wells come in direct contact with the tubing.

Here's how to bring the inlet and outlet temperatures closer together. . . .

20—Adjust Expansion Valve



EXPANSION VALVE SETTING CHART

Type of Evaporator	Temperature Difference Between Inlet and Outlet
Forced Air	
Instant and Tank Type Water Coolers.....	3° F. to 5° F.
WX Type Evaporators	5° F. to 7° F.
DX Type Evaporators	9° F. to 12° F.
Pipe Coils	10° F. to 20° F.

Refer to the chart below the picture, and adjust the valve until the difference between the inlet and outlet temperature is within the range specified for the particular type of evaporator.

After adjusting the valve, the entire evaporator will frost and provide more refrigeration. This may make the fixture too cold.

21—As the Final Step in Correcting Low Pressure, Adjust the Switch

Of course, if a thermostatic type switch is used this will not be necessary, for this type is controlled by the temperature of the fixture instead of by suction pressure.

However, it is very important to adjust a switch that operates on suction pressure, in order to prevent freezing of the products stored in the fixture.

TO manufacturing executives, this stamp was a familiar wartime symbol. Now it applies to the vast majority of post-war goods.

Today's restrictions are equally critical, for the extra production you need now will not wait while construction is planned, production materials obtained, and man-power found and trained. In spite of these apparent handicaps, your objectives for attaining your maximum share of present profitable markets may be realized. There is a sound answer to your problem.

Call Hupp, an experienced contract manufacturer.

In its Detroit Hupp Machining Division and its Cleveland Globe Stamping Division, Hupp is now serving many leading manufacturers in several industries. Hupp production is fitted to the need of each customer.

Hupp can stabilize your production by providing such operations as machining, stamping, rolling, welding, painting and assembly—do it for you on a straight-line, mass production, efficient cost basis, with loyal personnel whose experience is a heritage of more than thirty years of manufacturing one of America's leading motor cars.

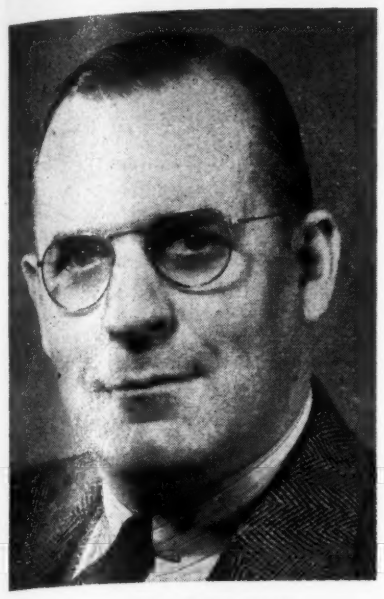
If men, machines and management—NOW—will remove your products from the Restricted List—

Call Hupp, an experienced contract manufacturer.

HUPP
MOTOR CAR CORPORATION
★
HUPP MACHINING DIVISION • DETROIT
GLOBE STAMPING DIVISION • CLEVELAND

ONE IN A SERIES OF ADVERTISEMENTS PRESENTING THE HUPP PLAN FOR INDUSTRIAL STABILITY

New Sales Manager



J. A. STRACHAN

* * *

Strachan Given Added Duties at Weatherhead

CLEVELAND—J. A. Strachan has been appointed sales manager of the Original Equipment Division of the Weatherhead Co., covering the sales of all products to original equipment manufacturers in the refrigeration, air conditioning, railroad, marine, chemical, food and beverage processing, and dairy equipment fields. Mr. Strachan adds these new duties to his present job of directing sales of the company's products in the refrigeration field.

In other new appointments announced by Heyliger Church, vice president in charge of sales, D. W. Holmes becomes sales manager of the Standard Parts Division covering all products sold through distributor channels; T. V. Scott is sales manager of the Liquefied Petroleum Products Division; and L. C. Doolittle heads up the Aviation Division sales.

Copper Refinery Output, Deliveries Show Drop

NEW YORK CITY—A drop of 28,400 tons in March copper deliveries and 29,800 tons in refinery output over February figures was reported last week by the Copper Institute. The total shipment figure of 58,590 tons for March included 24,229 tons of domestic copper and 34,361 tons of imported copper.

Mine output for the month, the report showed, equaled the preceding month with a figure of 41,042 tons. Refineries, however, because of widespread work stoppages, were only able to process 20,139 tons as compared with 49,923 tons in February. With only two copper refineries currently operating in the entire country, the institute did not forecast much improvement in the picture for next month, unless a great deal of readily usable foreign copper became available.

A low copper production tonnage for the month of March necessitated the reduction of refinery stocks.

Reconditioning Firm Dropping Trade-ins For the Present

Will Act as 'Broker' for Customers' Used Boxes

FRESNO, Calif.—Although Central California Electric Co. here maintains one of the largest appliance reconditioning shops in its area, there will be absolutely no trade-ins accepted in the future, according to Gordon Litwhiler, manager.

This concern formerly reconditioned and resold as many as 400 used refrigerators per year, and up to 700 washing machines (partly contract work for department stores and other dealerships). Home appliances thus reconditioned were repainted and generally cleaned up before being placed on sale, with an average 40% markup observed. Practically the same promotional methods were maintained for the used appliance department as with new lines, and the store felt itself reasonably successful in making this phase of appliance management pay.

"Nevertheless we plan to operate without trade-in worries in the next few years," Mr. Litwhiler explained. "We feel that even though there will be more trade-in boxes on the market than at any time in history, we will be so busy with selling and repairing new appliances that we cannot devote time to the customer's old refrigerators or washing machines."

" 'Clean business' arising from this type of management will pay rich dividends in a good store reputation and freedom from estimating repair costs, tying up space, and sales cost. From a breakdown of our own operating expenses we feel that no dealer's profits from used appliances can outweight all the trouble handling them causes.

"The cost of advertising, hiring mechanics, maintaining parts and disposing of junk, as well as frequent callbacks on repairs are some of the worst drawbacks to operating a trade-in service."

Another factor likely to clamp down on trade-in possibilities is the OPA ceiling limitation on new appliances. This, Mr. Litwhiler is convinced, will hold down the spread on trade-in allowances so much that amounts offered customers will cause illwill. Above that the appearance of old merchandise, no matter how well reconditioned, always works a hardship on the eye-appeal of the store.

"Instead of taking trade-ins, we plan to help the customer sell his own appliance," Mr. Litwhiler summed up. "To do this we'll maintain a list of people who phone in for second hand refrigerators and washers, and supply a copy of this to the new appliance prospect—since it will be just as easy and probably more profitable to sell it himself. This will leave our shop free for goodwill-building service work, and service work alone."

Iceberg Sales Head

B. C. DAVISON

* * *

Davison Named Iceberg General Sales Manager

NEW YORK CITY — Ross R. Smith, president of Iceberg Refrigerated Locker Systems, Inc., has announced the appointment of B. C. Davison as general sales manager.

Mr. Davison formerly was commercial sales manager for Westinghouse, refrigeration engineer with Frigidaire, and a district manager for Universal Cooler.

His offices with Iceberg will be in the Empire State building.

Detroit Servicemen to Revive R.S.E.S. Chapter

DETROIT—Plans for forming a Detroit chapter of the Refrigeration Service Engineers Society will be formulated on Tuesday, April 30, when a group interested in reviving local activity in the national organization will meet here.

An invitation to all members of the former local chapter, and to all present members-at-large in the Detroit area, has been extended by Charles E. Earl, of Alpha Electric Refrigeration Co., for a one o'clock luncheon get together on that date.

The meeting will be held at Alpha, 1115 E. Seven Mile Road, Detroit 3. Those who will come can notify Mr. Earl by letter or by phone.

Zia Electric to Distribute Oasis Water Cooler Line

SANTA FE, N. Mex.—Zia Electric Distributing Co. here has recently been appointed New Mexico distributor for Oasis Electric Water Coolers, manufactured by the Ebco Mfg. Co., announces Leland Bannister, president of Zia.

F. C. Rand is secretary-treasurer for the Zia firm, which also maintains offices in Albuquerque.

2 New Dealerships Are Formed in Nebraska

OMAHA, Neb.—Two new electrical appliance sales and service establishments have been incorporated in Nebraska recently.

Russell Harris, Inc., is capitalized here at $100,000 to distribute electrical appliances and supplies.

In Lincoln, a new refrigeration service and sales business, known as Hester Service Industries, Inc., has been incorporated at a total of $2,500.

A MASTERPIECE in Thirst-quenching Convenience

OASIS ELECTRIC WATER COOLERS

You're always *Sure* with an OASIS-built by EBCO, pioneers in the electric water cooler field.

The EBCO Mfg. Co.
401 W. Town St.
Columbus 16, Ohio

STANGARD
Prime Surface
COLD PLATES
For Maximum
Refrigerating Efficiency

THE STANGARD-DICKERSON CORPORATION
46-76 Oliver Street • Newark 5, N. J.
STANGARD KNOWS REFRIGERATION
Copyright 1945 by The Stangard Dickerson Corporation

Members of the Refrigeration Equipment Wholesalers Association

Your refrigeration parts and supply house in Central New York and Northern Pennsylvania

TED GLOU
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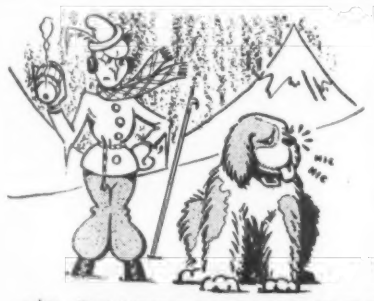

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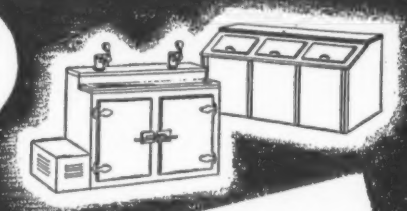

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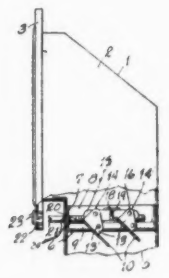
PATENTS

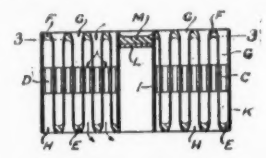
Week of April 2

2,397,672. AIR DUCT CONTROL FOR HEATING SYSTEMS. Robert L. Leigh, Coopersville, Mich. Application Nov. 24, 1943, Serial No. 511,629. 10 Claims. (Cl. 98—107.)



1. The combination with a register housing having a laterally directed discharge provided with a louver-equipped face plate, said face plate projecting below the bottom of the housing, of an air conduit of rectangular section connected to the bottom of said housing to deliver thereto, a rectangular valve frame mounted within said conduit adjacent said register housing, a cross piece of upwardly facing channel section disposed centrally of said frame, plate-like valve members arranged in side by side relation at each side of said cross piece and provided with upwardly projecting pivot ears at the ends thereof pivoted on said cross piece and on the ends of said frame, the ears at the inner ends of said valve members being extended to provide rocker arms, links connecting the rocker arms of said valve members disposed on the inner sides thereof above the flanges of said cross piece, an adjusting block slidable on said cross piece between said links and provided with laterally projecting pins, said links having vertical slots receiving said pins, and an adjusting screw having threaded engagement with said block and extending forwardly through said frame and conduit, the projecting end of said screw being adapted to receive an adjusting tool, said register face plate having a hole therein alined with said adjusting screw.

2,397,759. FILTER. Miroslav Sigmund, Gosforth, England. Application Aug. 13, 1943, Serial No. 498,522. In Great Britain April 17, 1942. 4 Claims. (Cl. 183—71.)



1. A filter insert pack of the class described including two plain bands of filtering material coiled one over the other with the convolutions of one band interleaved with the convolutions of the other band, spacing means between the bands for providing two separate chambers interwound with one another and divided from one another on both sides of a wall of filtering material, each band having on one edge thereof a bead of sealing material disposed opposite to the bead on the other band, said sealing material being plastic, adhesive, and impervious to gas and coiled with the bands, each chamber having one edge closed at one end of the pack by the sealing material lying directly thereon between the borders of the bands forming the walls of the chamber and the other edge open at the other end of the pack, said sealing material adhering to adjacent portions of the bands to close the same, the convolutions of the closed edge of one of the chambers alternating with the convolutions of the open edge of the other chamber at the same end of the pack, the two ends of the chambers being closed in a direction substantially axial to the pack, the formed volute chambers being undivided over most of their area and free from obstruction from end to end in the peripheral direction of the pack, the parts being constructed and arranged so that none of the air to be filtered can pass through the pack except by entering the open edge of one of the chambers at one end of the pack and passing through a wall of filtered material into the other chamber from the open edge of which it is free to escape at the other end of the pack.

Apex Electrical 1945 Net Income Set at $404,519

CLEVELAND — Net 1945 income of the Apex Electrical Mfg. Co., manufacturer of "Apex" and "Rotarex" appliances, was $404,519 or $4.31 per common share, the highest net profit recorded by the firm since 1942, according to C. G. Frantz, president.

Business during 1945 was almost wholly war work for eight and a half months, said Mr. Frantz, adding that operations were at a standstill for two months during the first quarter because of shortages of materials caused by strikes in suppliers' plants.

Net sales were reported as $22,960,393, almost entirely war products, against the 1944 total of $13,494,561—a gain of 70%.

Investments in building extensions, machinery, and equipment were reported to be $739,561, with depreciation and amortization of war facilities totaling $418,063, resulting in an increase of property account of $321,498.

An investment of an additional $750,000 now being put forth will increase Apex production capacity for washers, ironers, and vacuum cleaners by 50% at the Cleveland and Sandusky, Ohio, plants, Mr. Frantz said.

Vet Appliance Loan Bill Goes to N. J. Governor

TRENTON, N. J.—A bill broadening New Jersey's veterans' loan act of 1944 to permit borrowing for household appliances and furnishings has been given final approval by the State Legislature and sent for signature to Gov. Walter E. Edge, who had advocated such legislation.

Under the measure, state-guaranteed bank loans of up to $2,000 at 4% interest, with up to six years allowed for repayment, will be available to New Jersey war veterans for the purchase of household appliances and furnishings.

Capitalization of the State Veterans' Loan Authority is increased by the bill from $5,000,000 to $15,000,000 to provide for the new loans as well as to continue to meet the needs of veterans wishing to borrow up to $3,000 to set themselves up in small businesses.

The new legislation also makes veterans under 21 years of age eligible for loans.

4 Universal Ironer Models Assigned Price Ceilings

NEW BRITAIN, Conn.—Maximum retail prices on sales to consumers of four models of Universal ironing machines manufactured by Landers, Frary & Clark here were established by OPA Order 57, MPR 86, as follows:

Model	Zone 1	Zone 2	Zone 3	Zone 4
E-22	$ 32.65	$ 33.20	$ 33.65	$ 35.15
WM 4501	32.65	33.20	33.65	35.15
WM 4502	91.95	94.25	96.55	98.85
WM 4503	102.20	104.80	107.45	110.05

Distributors of these four models were authorized to determine their ceiling prices by means of Section 15 of MPR 86, except that when Rules 5 and 6 of that section are applicable, the dealer may increase the prices for each model by the following dollar amounts:

Model:	Amount which may be added
E-22	$0.70
WM 4501	0.70
WM 4502	1.97
WM 4503	2.23

OPA Restricts Tulsa Dealer

TULSA, Okla.—Guy E. Waycoff, second-hand dealer, has been enjoined by District Judge Leslie E. Webb, from selling electrical household goods for six months, for alleged violation of OPA price regulations.

The court modified the order, however, with the stipulation that Mr. Waycoff could resume sale after 60 days if he had observed ceiling prices in the meantime.

Philco Film Marks Start Of Sales Training Program

PHILADELPHIA—The first phase of the 1946 Philco Retail Sales Training Program was started recently with a pre-showing of a two-hour motion picture featuring Philco products to over 70 retail salesmen at the Philco Distributors, Inc., offices in Philadelphia.

Through the motion picture medium, a selected group of retail salesmen and distributors from the larger eastern cities was shown the entire radio, radio-phonograph, freezer, and refrigeration line, analyzed by top Philco executives. This film in conjunction with other visual aids will be used by Philco distributors in sales schools all over the country during the summer and early fall.

In addition, this retail sales training film has been shown to the University of Pennsylvania Evening Salesmanship Class at the request of Dr. J. L. Daubman, class director, to illustrate the use of motion pictures as a significant development in sales training technique.

Wesco Appoints Roy L. Brown

NEW YORK CITY—Roy L. Brown has been appointed manager of Westinghouse Electric Supply Co.'s eastern district, with headquarters here, announces David M. Salsbury, vice president and general manager. Branches included in the district are located in Newark, Trenton, Jamaica, and Hempstead.

Mr. Brown had been manager of Wesco's northern district, with headquarters in Milwaukee, from 1942 until his recent appointment. Prior to that, he served in various sales capacities with the organization.

CLASSIFIED ADVERTISING

POSITIONS WANTED

SERVICE MANAGER with refrigeration and air conditioning experience, thoroughly familiar with commercial and industrial service work, test laboratory, locker plant design. 10 years experience, age 33. St. Louis and vicinity preferred. Box 1968, Air Conditioning & Refrigeration News.

OVER 8 YEARS Experience in installing and servicing all types of commercial refrigeration for leading mid-west manufacturer. Presently employed by small concern, servicing commercial and domestic refrigeration and oil burners. Desires position as field man or branch service manager for manufacturer or dealer. Box 1969, Air Conditioning & Refrigeration News.

REFRIGERATION SERVICE Engineer desires position with reliable firm, preferably in western or southwestern states. 10 years experience as service man on domestic and commercial units to 10 hp. One year as refrigeration instructor in shop work. Would like position as Commercial Application man. Age 41 years, two children. Box 1970, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

REFRIGERATION PARTS Supply Sales representative wanted for Washington, D. C. and vicinity. Must be thoroughly experienced and have automobile. Excellent position for qualified man. Write: ELECTRIC EQUIPMENT CO., 2473 Sherman Ave., N.W., Washington 1, D. C.

AIR CONDITIONING APPLICATION Engineer. Opportunity unlimited with established concern. Must know the answers to qualify. Also service engineer qualified to handle equipment and control systems to 100 tons. Plenty of work and union scale or over. Ability absolutely essential. Apply in person if possible to AL SCHOEN, 2604 16th St., Sacramento 14, Calif.

WANTED: 1 Sales Manager on Commercial Refrigeration and Air Conditioning. 1 Sales Engineer on Air Conditioning and Refrigeration. 2 Specialty Salesmen. Proposition entirely up to capacity and experience of men involved. Chance to become part of the business after their particular work is proven. Write Box 1971, Air Conditioning & Refrigeration News.

YOUNG MAN with knowledge of refrigeration required for export sales department with leading exporter of air conditioning equipment. Knowledge languages and export business desirable but not essential. 5 days week. Apply 4th floor, 89 Broad St., New York 4, N. Y.

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REACH-IN TYPE Freezers. Polished stainless steel finish throughout. 20, 55, 75 cu. ft. capacity. Streamlined-Selfcontain with units. Electric water coolers, beverage coolers, refrigerators remote and selfcontain. Walk-in coolers, ice cream cabinets, condensing units, blower coils, water tanks. Prompt delivery. AMERICAN COMMERCIAL EQUIPMENT CO., 4150 Holly Knoll, Los Angeles, Calif.

IMMEDIATE DELIVERY. Complete Carrier 20 ton cycle complete with water chiller, reheat coils, air washer, blowers, controls, etc. Used two seasons—In warehouse. 7½ ton GE condensing unit complete with coils, blowers, precipitron, etc., used two seasons. Can see equipment in warehouse. CONTROLDTEMP EQUIPMENT SALES CO., 236 Butler St., Brooklyn 17, N. Y.

FOR SALE: 10,000 new aluminum ice cube trays. Also air-cooled and water-cooled remanufactured condensing units ¼ up to 2 hp. Write for particulars. EDISON COOLING CORP., 310 East 149th St., Bronx 51, N. Y.

MILK COOLERS—New—complete with condensing units unusually well built—4 and 6 can available for immediate shipment—Dealership open in certain parts of country. Box 1962, Air Conditioning & Refrigeration News.

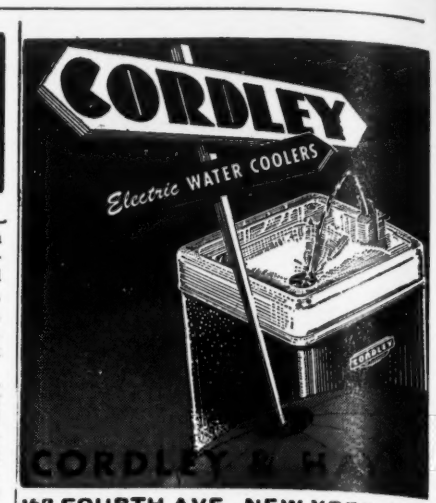
FRANCHISES WANTED

FRANCHISES WANTED for refrigerators and small electric appliances. Well established firm in Sao Paulo, Brasil. Excellent territorial coverage over state of Sao Paulo. Reply direct to PERVAL S/A, AL. Nothmann 1234, Sao Paulo, Brasil.

EXPORT: India, China, Burma, Straights settlements. Experienced in territory. Have refrigeration engineer financially interested on the ground at Calcutta. Will pay cash for line of coils, reach-in coolers, packaged and room air conditioners, farm and home freezers, beverage coolers, etc. Box 1967, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

PATENT PENDING: Revolutionary design ice cream cabinet. Outmodes present types. Mr. manufacturer—get this before someone else markets it. Write, or wire for drawings and specifications. H. W. CUSTER, 8224 Superior St., Centerline, Mich.



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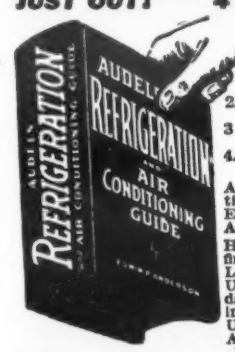

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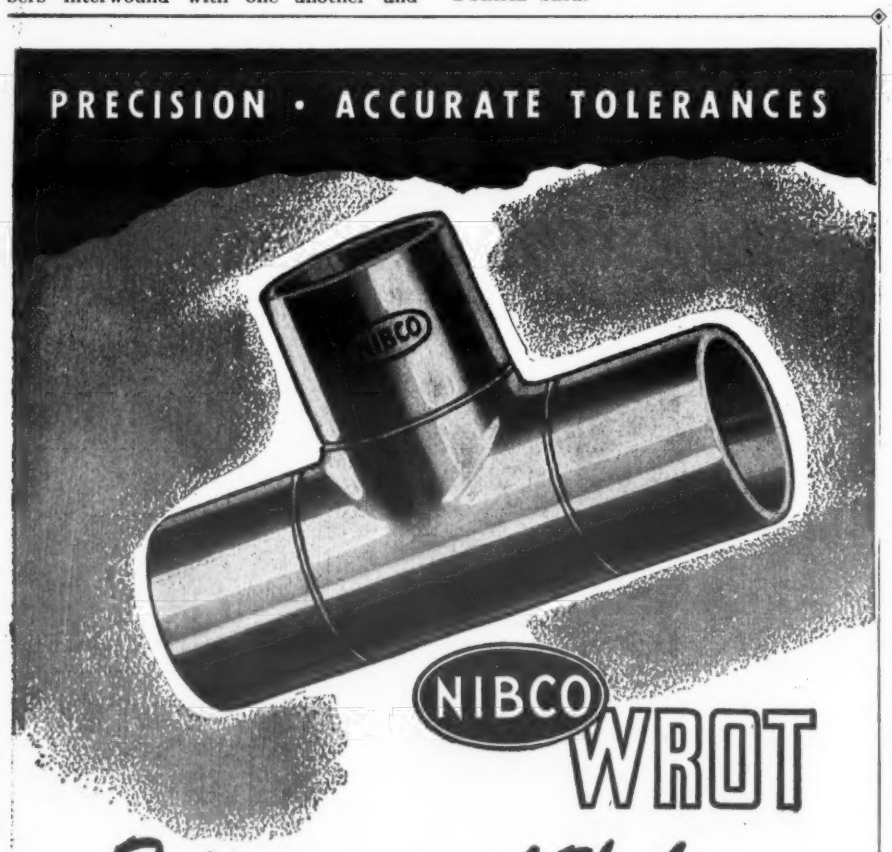

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American Society of Heating & Ventilating Engineers
7218 Euclid Ave.
Cleveland 3, Ohio

Editor:

I have just read with considerable interest your "Inside Dope" Column in AIR CONDITIONING & REFRIGERATION NEWS of March 25, 1946, and feel just as strongly about the price control situation as you.

The present state of affairs, I believe, establishes very firmly the fact that the partially managed economy to which the country is now being subjected just doesn't work.

While you have built up a magnificent case in the column, there is one point which I would like to add regarding wartime price controls. There were numerous companies in the country who were manufacturing both for the war effort and for civilian use, the latter products being for a replacement market.

All during the war period these companies endeavored to get a price relief on such civilian goods as they made, realizing that sooner or later the war would be over and that they would be caught with these non-profit items which would then be their only source of income. In practically every instance where price relief was sought OPA refused such increases in price with the statement that any losses could be made up from profits on materials or equipment being sold to the government. This action of OPA was in essence a federal subsidy.

I do not know whether you propose to cover this price situation at some future date or not; but, in case you do, the foregoing information may be of value.

CLYDE A. MCKEEMAN,
Assistant to the President

'IT IS THE TRUTH'

1602 Holyrood Road
Cleveland 6, Ohio

Editor:

Your editorial of April 1 ("Wallace's Face Is Red—But Too Late!") is excellent. It is the truth.

E. DALY

'SCREWBALLS' BEAMED

General Vending Machine Corp.
Room 426
549 W. Washington Blvd.
Chicago 6, Ill.

Editor:

Your editorial on the screw-ball "statisticians" of our dominant bureaucratics in Washington was right on the beam.

E. A. TERHUNE,
General Manager

RIGHT AND WRONG OF THE SAMPLING METHOD

1612 S. E. Boulevard
Evansville 14, Ind.

Editor:

I was interested in your editorial in the March 18 REFRIGERATION NEWS. I agree with your conclusions that we have a "Screwy School of Statisticians." I still say, however, that statistics and the "sampling" method will work with the *facts* as well as *opinions*. However, the usual fallacy is that people interpret more into the statistical information gathered than actually exists.

A sampling of 100 barrels of apples for defective apples may give us certain figures. The interpretation we can put on those figures depends on the size of the samples taken (in relation to the size of the barrels), whether they were taken from different parts of each barrel or from the top only, whether the barrels have some oranges as well as apples in them or not, and so on. Unless all limitations to the data obtained by sampling are accurately evaluated we get a "screwy" result just as in the case of the "need for air conditioning" example you gave.

In this same connection I made a brief write-up using functional equations covering some elementary facts of economics. I am attaching a copy which it might interest you to look over.

This must be considered statistically. You will note, for example, the equations say that if wages go up without a corresponding efficiency increase and prices remain fixed and constant, supply will eventually disappear. Supply can disappear by companies going broke, by their ceasing to manufacture an article in favor of more lucrative articles, by labor-management - controversies or strikes and so on. The present wheat shortage, according to the way I read the papers, is a case of the farmers converting the wheat into livestock by feeding because the planners made this a more lucrative deal.

Pardon the lengthy remarks, however, you only know whether your writings are read by the comments you receive. Keep up the good work.

ROBERT S. TAYLOR

'NO BED OF ROSES' IS RIGHT, SAYS ONE WHO KNOWS

Tecumseh Products Co.
Tecumseh, Mich.

Editor:

I noted with great interest your editorial entitled "Compressor Business Is No Bed of Roses."

I read this editorial to several of our executives and they heartily agree with you. There is no doubt that there will be sufficient production of units as soon as the material situation clears up.

The biggest barrier in the unit business today is motors and castings, and for the life of me, I don't see any relief for at least four or five months.

We have expanded our business five times over our big year of 1941 and have spent approximately one million dollars in monies for equipment to take care of the increased business.

It sure is a hardship on the cabinet manufacturers who buy units, but to the best of my knoweldge, all of the manufacturers in the unit business are having a hard time getting motors and castings.

It is such editorials of your kind, written by men like you who understand the unit business, that really are appreciated, and the plainness of your statement, if anything at all, is very conservative.

R. W. HERRICK,
President

TOO MANY ONE-AND-TWO MAN SERVICE FIRMS?

Refrigeration Service, Inc.
3109 Beverly Blvd.
Los Angeles 4, Calif.

Editor:

I have just read with considerable interest the first few items of "Inside Dope" of the March 11 issue. Because I happen to have had some experience in instructing, and also, because of my general interest in training programs, the Veterans Bureau in Los Angeles has been referring a great many of the G.I.'s to me for consultation when they express an interest in the refrigeration field.

The particular item I am writing about is the one written you by a Mr. Murray Warshaw and his problem. Without a doubt, this is a problem facing any untrained person attempting to enter this field. I feel that there are at least two conditions existing that might possibly be corrected so that it would be easier for such men to gain the opportunity they want, also, which would help our industry in getting really interested men properly trained.

First of all, I do not feel that the proper advantage is gained from a 15-week instruction course if this course is on a full time basis. I think that if a man is to absorb even a small percentage of his instruction from this type of course, he should be working in the industry at least for 40 hours a week while taking the instruction. Of course, this lengthens the instructing period, and this should prove to be an advantage.

I often wonder just what promises are made these trainees when they are being solicited for this type of course. Of course, when you discuss this problem with these training schools, they will tell you that the men are all properly impressed with the fact that when the training is completed, they must still start at the bottom of the ladder, and the only advantage that they will gain from their training is that they should be able to go further in the industry because of it.

This is the information that these men should receive, but, it would seem only natural that a school set up on a commercial basis would be tempted to paint a more rosy picture.

Mr. Warshaw inserts one sentence, "they even try to discourage us from entering the field." This, of course, is understandable to any of us who see the entire picture, and I often follow the same tactics, feeling that, in this way, some of these men whose interests are superficial will be kept from wasting their time and the time of their employers. Care should always be exercised in this respect so that if a determined interest is still evident after attempting to discourage the man, he should then be encouraged.

The one element which at the present time is standing in the way of our industry properly training these men is the trend towards smaller and smaller business units. It seems that a refrigeration man, just as soon as he feels that he can stand on his own feet, decides to get into business for himself. Some of these men are qualified and some are not.

Assuming that they are all qualified to operate their own businesses, we still find a condition where our industry is broken up into units of one or two man organizations. It is obviously impossible for this type of a company to afford an apprenticeship training program. In my opinion, these men who represent the experienced service engineers, should give considerable thought to forming groups either as partnerships or corporations.

If you can see any logic to my thinking, possibly, some propaganda towards this end will be worth any space that your paper could allocate to it.

H. A. HALLS

SOLD ON THE INDUSTRY, VETERAN WANTS JOB IN IT

R. C. McKibben
527 E. Fourth St., S.
Newton, Iowa
March 25, 1946

Sirs:

I obtained the March 18 issue of your paper a few days ago from a refrigeration friend of mine and read it from cover to cover. I was very impressed and thoroughly agreed with the article written by Mr. Jones of Servel, Inc. I am an ex-serviceman and want to get into the refrigeration and air conditioning field.

I have worked in a tool and die shop for three years and had refrigeration in the Navy for two years. I have hardly scratched the surface of the field, but I believe I am mechanically minded and capable enough to learn the trade. I would eventually like to get in the selling and distribution end of the field, however I feel that I should have a greater knowledge of the practical side of refrigeration and air conditioning before I try to sell.

I spent a week in Chicago looking for an opportunity, but to no avail. I am very willing to work and learn, but can secure no openings. My refrigeration friend thought you people might have a list of companies or factories who are looking for men who are willing to work and learn.

I am 23 years old, married, and have two children. Because of the health of my wife, a drier climate such as New Mexico or Arizona is preferred; however any suggestions for opportunities elsewhere will be greatly appreciated. Thank you.

RICHARD MCKIBBEN

ANNIVERSARY GREETINGS

Stewart, Hanford & Casler, Inc.
c/o Williams Oil-O-Matic
Bloomington, Ill.

Editor:

I am entrusting two assignments to this long overdue letter:

First: It carries my order for an autographed (nothing less will do) copy of your book.

Second: It reminds you that your latest anniversary in the trade paper world did not pass unnoticed in the Corn Belt.

You have come a long way, George, and this makes many people happy. As our mythical friend, the Sagebrush Sage, would say: "George Taubeneck has put more horsepower in Detroit than the whole durn gas buggy bizness."

JOHN CULLINAN

NORWAY LOOKS FORWARD

Tollbodgt 24
Oslo, Norway

Editor:

I was able to take a trip to U. S. A. last fall with Government commission but, although I was in Detroit 20 hours, I did not find any possibility to pay you a visit.

I have managed to keep away from the German torture in this country during the war, and now we are all thankful that we can breath again without fear. In our trade we are only looking forward to the time the U. S. A. again will be able to export the "World's best Products."

REIDER A. HAUG

MORE ILLUMINATION

Monitor Co. of
Louisiana-Mississippi, Ltd.
Jackson, Miss.

Editor:

Inside Dope item "People are Thinking" is excellent.

Let's have more of such illumination.

ALFRED HUNT UHALT, SR.

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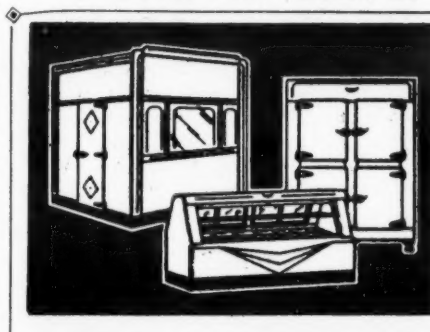
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Specific Rulings on Construction Awaited By Industry While CPA Prepares General Procedure for Permits Under Housing Order

DETROIT—The commercial refrigeration, air conditioning, and locker plant industries still remain pretty much in the dark as to their exact status under the government's building freeze order being administered by the Civilian Production Administration.

Hurriedly trying to set up the machinery to handle individual applications for approval under the Veterans Emergency Housing Order No. 1, CPA officials have not yet issued specific directives to guide local and regional construction offices in approving or turning down applications for construction involving products of the refrigeration industry.

The original order itself has created a certain amount of confusion in this industry. It would appear, for example, that packaged store coolers might require CPA approval before they could be installed. The order states that any construction on a "commercial" type of establishment must be approved if the total cost of the job amounts to more than $1,000. Store coolers, which generally cost above $1,000, may fall into the category of "fixtures" and "ventilating equipment" which require CPA approval under the order.

STORE COOLERS EXEMPT?

A leading manufacturer of packaged air conditioners, however, has advised its dealers to assume that no permit will be required for store cooler installations. These dealers have been told to continue taking orders for the units. Few if any of the conditioners have actually been received by dealers from the manufacturer.

This manufacturer reports that there is a difference in opinion among regional attorneys for the CPA as to whether these air conditioners are covered by the order or not. In the absence of any specific ruling on the matter from CPA, the company says it will continue on the assumption that these conditioners are not affected and that no approval is necessary for their installation.

Locker plants definitely come under the order and therefore must be approved before construction or alteration begins, provided the cost amounts to $1,000 or more. Compressors and cooling equipment for locker plants and cold storage warehouses, however, are exempt from limitations of the order.

NO RULING ON LOCKERS

"Contrary to some reports, there has not been any directive from Washington to the effect that all locker applications should be denied," reports R. R. Farquhar, executive director of the Frozen Food Locker Manufacturers and Suppliers Association in a bulletin to members. He adds that a $29,000 locker plant project in Illinois has been approved by CPA.

"We have been advised by both Washington and regional CPA officials," continues Mr. Farquhar, "that the best procedure will be to submit applications to the various offices which will be set up along the pattern of the old WPB district offices. These applications will be passed on by the local Citizens Committee, and, from the best information we are able to obtain, it seems likely that they will be classed as essential construction and will be permitted.

"It has been suggested, however, that in order to make out the best possible case we limit the use of critical materials, such as lumber, just as much as possible. Applications will be more favorably received if the construction of a building is of concrete blocks and steel (wherever possible) or other materials which ordinarily are not used in the construction of houses.

"We believe it should be pointed out in making applications that present food storage facilities in the community in question are inadequate, that a substantial demand exists for such facilities, that the locker plant will make a contribution both to the community and to food conservation in general, that it will provide local employment both during the course of construction and thereafter (in many cases for veterans), and that such projects involve the use of relatively small amounts of critical materials," declared Mr. Farquhar.

Decisions on granting approval to construction projects are passed upon by local citizens committees, points out Mr. Farquhar, and the decision of the committee, if adverse, may be over-ruled by the CPA district manager.

Decisions of the local committees and district managers may be further appealed to the regional CPA manager, who has the authority to approve or deny the application.

"It would seem to us, therefore," suggests Mr. Farquhar, "that immediate steps should be taken by our members to get acquainted with the district and regional managers of CPA so they will be familiar with the essentiality of frozen food locker plants."

MORE BUILDING SEEN

The general confusion throughout the whole construction industry regarding the ultimate effects of this building freeze order recently prompted Wilson Wyatt, government housing expediter, to assure the nation that non-residential construction will continue. In fact, he said, "the present goal of $23 billion [in such building] represents a 4% greater volume than there would be without the emergency program.

To aid local CPA construction offices in determining when to approve or turn down applications for non-residential construction, CPA headquarters in Washington says it has sent out a set of "processing instructions" to the local offices.

(The regional attorney at the Detroit CPA office, however, said last week that he hadn't seen this set of instructions; in fact, he hadn't even heard of it.)

Among the specific rules listed in these instructions are the following:

Essentiality: "To be considered essential, in general, a project when completed must provide (1) for the production of a product declared critical by CPA; or (2) the elimination of a local shortage of employment opportunities amounting to a community hardship; or (3) the elimination of a serious shortage of an essential activity or service affecting the general health, safety, or welfare of the community.

"Where a need is clearly demonstrated this may include utilities, hospitals, schools, churches, welfare institutions, or commercial establishments, etc.; or (4) the elimination of a bottleneck to the reconversion of the national economy from a wartime to a peacetime basis.

"Cases not deemed essential shall be recommended for denial, unless it is obvious their construction will have only a minor impact on veterans' housing through use of materials. Once determined essential on the basis of appraisal of the applicant's statements and the analyst's own judgment from knowledge of local conditions, the case shall next be considered for deferrability."

PROJECTS CAN BE DEFERRED

Deferrability: "Many projects will rightly qualify as essential. However, were all essential projects allowed to be constructed during the present emergency, there obviously would be excessive drain on the supply of building materials and labor needed for construction of houses for veterans. Therefore each project determined essential will have to be examined to determine whether it is deferrable."

The Detroit CPA attorney also points out that veterans will receive preference in their applications, all other factors being equal.

If, for some example, two commercial establishments in the same neighborhood applied for permission to proceed with a construction job, and the local CPA committee decided that only one such job was essential in that neighborhood, permission would be granted to only one firm. If one of the applicants was a veteran, he'd undoubtedly be given the go-ahead, barring extenuating circumstances which might favor the other applicant.

Because of the importance of this building order, the NEWS is publishing herewith some of the excerpts from the housing order itself which have appeared in the April 8 issue. The following lists the maximum sums that may be spent on construction or repair work to various types of structures without first obtaining approval of CPA:

"1. $400 for a house or other structure, (such as a garage) on residential property designed for occupancy by five families or less.

"2. $1,000 for a hotel, resort, apartment house, or other residential building designed for occupancy by more than five families.

"3. $1,000 for a building used primarily for one or more commercial or service establishments such as offices, banks, stores, laundries, garages, restaurants, night clubs, theaters, repair shops, warehouses, *frozen food locker plants*, and radio stations.

"4. $1,000 for a farm, excluding farm houses which are covered by paragraph [1] above.

"5. $1,000 for a church, hospital, school, college, or a publicly owned building used for public purposes, or for an orphanage or other building used exclusively for charitable purposes.

"6. $15,000 for a factory, plant, or other industrial structure which is used for the manufacturing, processing, or assembling of any goods or materials, for a logging and lumber camp, for a pier (other than a pier designed for amusement, entertainment, or other commercial purposes), for a structure used for, or in connection with, a railroad or street railway or a commercial airport, for a bus terminal, for a truck terminal operated by a common or contract carrier by truck, or for a research laboratory or pilot plant or for a motion picture set.

"7. $200 for a structure covered by this order which does not fall within one of the classes, listed above."

APPLICATION PROCEDURE

In order to begin work which is prohibited by the housing order, it is necessary to apply to CPA for approval. If the application covers housing accommodations under Priorities Regulation 33 (including farm dwellings), it should be made on Form CPA 4386. Applications for non-farm housing accommodations should be filed with the local office of the Federal Housing Administration. Applications covering housing accommodations on a farm should be filed with the appropriate County Agricultural Conservation Committee.

If the application covers work on a farm (other than a farm dwelling), the application should be made on Form CPA 4423 and should be filed with the appropriate County Agricultural Conservation Committee.

If work on any other kind of structure is involved, the application should be filed on Form CPA 4423 with the appropriate Construction Field Office of CPA.

"When an application on Form CPA 4423 has been approved, a placard will be sent to the applicant stating that the construction has been approved under this order. The applicant must place in the placard the project serial number and must set up the placard in front of the project site in a conspicuous location within five days after construction has been started and he must keep the placard there until completion of the building," the order states.

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INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
This Is Cute
Sports Note:

Story of the Week

Give any woman an inch, and she gets the idea that she's a ruler.

Consumer-harried appliance salesmen will agree with the above aphorism without a moment's hesitance. Take, for instance, the box-office clerk who was just about to shut down the window when an excited female rushed up and shouted:

"Gimme two aisle seats for tonight's performance."

Patiently, the ticket-seller advised:

"We're sold out for tonight's show. All I can give you is two standing-room stubs."

The excited female calmed down but just for a moment.

"Are those standing-room tickets together?" she demanded.

This Is Cute

Workers at the Glenridge coal mine near Centralia, Ill. were forced to walk out on themselves recently, when a strike was called in the national break between operators and the AFL United Mine Workers. This unique situation was created by the fact that the miners own the mine themselves, and consequently represent both management and labor.

Unable to enjoy with a clear conscience the first vacation that some have had for three or four years, the diggers applied to their union for special permission to return to work.

The mine, now owned by 120 of its 160 miners, was purchased in 1940, when the former owners found it unprofitable and decided to sell it for junk. However, one of the principal stockholders, Mrs. E. E. Pike of Centralia, held out for the right to sell to her choice of bidders, not necessarily selecting the highest.

Thus, when idle miners in the Glenridge village of 300 became interested, a public subscription was started, and a door-to-door collection was made in Centralia. Although the miners' bid was the lowest of all submitted—$6,000 under the highest offer—they were allowed to buy the pit because of Mrs. Pike's resolution. Each miner was sold a limit of two shares of stock at $100 per share.

This mine has been producing 1,300 tons of coal a day under its present management, and the worker-owners plan to hoist more than 400,000 tons of coal this year, barring delays such as the strike in question.

An election is held by the miners each April 22, when they choose from their group four new directors to join three holdovers, comprising a seven man board. A superintendent is selected each year from the ranks, and serves for a period of one year.

Sports Note:

Eddie Basinski, Brooklyn shortstop, complained to Commissioner Albert B. Chandler that Ben Chapman, new manager of the Philadelphia Phillies, had tried to persuade him to "jump" his contract.

Chandler, after reviewing the evidence, exonerated Manager Chapman. "How do these guys get that way?" asked the forthright-but-puzzled High Commissioner of Baseball.

Perhaps this isloated notation may provide "Happy" Chandler with a clue: Mr. Basinski is quite a fellow. In addition to being a Brooklyn shortstop, he's also a concert violinist with the Buffalo Symphony Orchestra.

P.S.: That's America, brother!

Ration Copper, Gov't Urges

WASHINGTON, D. C.—Voluntary rationing of copper and copper products was asked by the Civilian Production Administration in a statement issued April 22 to copper producers and fabricators, and also to copper and brass warehouses.

Such action is necessary, the C.P.A. declared, because production has been hard hit by strikes at the mines and refineries, and is now feeling the effects of the coal strike.

The statement was made that mine and smelter production have dropped more than 50%; brass mill production is down to 15% of capacity; copper wire mills to 25% of capacity; and copper rod mills to 40% of capacity.

"The situation is so serious," declared Frank H. Hayes, director of the C.P.A. Metals and Minerals Division, "that even prompt resumption of production will leave every consumer of copper or copper products in a hardship status for a considerable time because of loss of production which has occurred.

The statement of policy outlined by C.P.A. for copper products is as follows:

1. Copper producers and fabricators (brass mills, wire mills, and foundries) shall ration all deliveries so that no individual customer or individual class of customer will receive more copper products than are needed for immediate use. The minimum needs of the largest possible number of their customers should be supplied, giving to each his fair proportionate share.

2. Brass mills, wire mills, and foundries shall schedule shipments to warehouses and distributors so that they may make deliveries of standard items to permit the continuation supply of copper products materials for small business and may continue to supply items required for maintenance and repair purposes.

3. All brass mills, wire mills, and foundries shall schedule shipments of materials to non-integrated producers so that the operations of these producers may be maintained proportionately.

Second Price Increase Seen for Brass Mills

WASHINGTON, D. C.—Announcement is expected momentarily from OPA of an additional base price increase averaging 1.3 cents a pound for brass mill products following a meeting in New York City between agency officials and members of the Brass Mill Products Industry Advisory Committee.

Intended to offset wage increases recently or soon to be granted brass mill workers, the increase would boost this year's price hikes to 2.8 cents a pound. An average increase of 1.5 cents a pound was authorized last month to compensate for wartime advances in the cost of manufacture and supplies and for reconversion.

It is understood that agreement was reached at the New York meeting on the overall average price increase, but that official announcement would be delayed until the effect on each particular product is determined. The raise will pertain only to base prices, with no changes in the "extras," it is thought.

New price schedules probably will be in effect May 1, it is believed.

By an amendment to RPS 408, OPA last week authorized distributors of all brass mill products to pass on the 1.5-cent increase granted producers. Prior to the amendment, MPR 408 allowed the pass-on of increases only in direct mill shipments and deliveries of pipe and water tubes from warehouse stocks.

Refrigerator Prices

Text of the OPA amendment increasing prices and making changes in the household refrigerator pricing order appears on Page 13 of this issue.

Promotional Drive Begun by NEWA

CHICAGO — Beginning a nationwide promotional and public relations program, the National Electrical Wholesalers Association unanimously endorsed a "Declaration of Electrical Interdependence" and "Tenets of the Electrical Wholesaler" at its thirty-seventh annual meeting at the Stevens hotel here last week.

More than 1,000 member-wholesalers and electrical manufacturers attended the convention, over which presided President John L. Busey of General Electric Supply Corp.

The declaration, originally promulgated by the National Electrical Manufacturers Association, calls for recognition of unity of aims and interdependence within the industry and the subsequent recruiting of industry employes and their families as volunteer "salesmen-educators." The N.E.W.A. version pledges consumers that electrical wholesalers "will do their part in bringing to the markets more products and better products at less money."

N. J. MacDonald, chairman, N.E.M.A. General Sales Promotion Committee, who addressed the meeting, declared that all branches of the electrical industry are interdependent, that the sale of one electrical product often affects the sale of many more products. He cited the adequate wiring program, other industry promotions and electric range sales as examples of electrical interdependence as between industry groups and the thousands of individual products often thought unrelated.

"The electrical wholesaler is in the key position in our industry," Mr. MacDonald said. He warned that the industry's future depended on increased consumption, on "greater acceptance of electrical products in

(Concluded on Page 4, Column 4)

Siegfried Becomes V. P. Of Superior Valve

PITTSBURGH — W. A. Siegfried has been elected vice president in charge of sales of the Superior Valve & Fittings Co., it has been announced by J. S. Forbes, president.

He was formerly sales manager for the company, and has been active in the refrigeration valve and fittings field for more than a dozen years.

Appliance Industry Fears Cut as Coal Strike Curbs Steel Mills

* * *

Foundry Shutdowns May Hit Compressor Output

CLEVELAND—Compressor manufacturers, already beset with many problems of price and supply, can find little encouragement in the casting situation, with foundries facing possible shutdowns or at least drastic curtailment because of the coal strike and shortages in pig iron.

Price controls, too, haven't helped foundry production in the past several months, leading many operators to turn down their old customers in favor of new ones who could be legally charged a higher and thus profitable price, declares the *Wall Street Journal.*

Malleable and gray iron foundry men, using chiefly coal and coke to fire their furnaces, say it will be only a "matter of days" until they will be forced to cut down the flow of castings to the many industries they supply.

Producers of steel castings shouldn't be affected quite so soon, because they are mostly equipped with electric and gas-burning open

(Concluded on Page 4, Column 3)

* * *

Steel Production Drops To Conserve Fuel

PITTSBURGH — Repercussions of the coal strike will soon hit appliance manufacturing and virtually all other industries where coal is used directly or steel is required, declared J. B. Small, Civilian Production Administrator.

With steel production dropping steadily as the mills conserve their fuel stocks, steel shipments are also being curtailed by some producers to points distant from the mills because of price-freight problems, thus even further dislocating the steel supply problem for manufacturers.

After a telephone checkup across the country, Mr. Small pointed out that "although there is a time lag, the impact of this coal strike will be felt by the public throughout the country as repercussions from the strike spread from the steel mills back to plants, then to the wholesalers and retailers and finally to the consumers. The fact is at this critical period of reconversion that every citizen of our country has a definite stake."

In addition to steel mill operations and the strike's effect on production of refrigerators, automobiles, and other consumers' goods, prolongation

(Concluded on Back Page, Column 1)

New Compressor Line Has 2-Stage Unit

LIMA, Ohio—Three hermetic compressors, including a two-stage ¼-hp. for low temperature applications will go into production Oct. 1 at Crider Engineering & Mfg. Co., a new company at 901 W. North St. here just organized by T. G. Crider, who recently resigned as product engineer of Carrier Corp.'s package unit division.

First production program calls for single stage ¼ hp. and ⅓-hp. "Freon-12" compressors and the two-stage ¼-hp. machine. The latter will be available for both "F-12" and "F-22" operation, stated Mr. Crider, who is president and general manager of the firm.

The two-stage machine will have no condenser fan, being designed for static operation at 0° to -25° F. suction temperature. The single stage units will be produced for 0° to 25° F. suction temperature. All three units will be available as compressors alone or in complete condensing unit assemblies, according to Mr. Crider.

Three more compressors will be added to the line the following year,

(Concluded on Back Page, Column 2)

American Coils Set For New Expansion

NEWARK, N. J. — Five new annexes, a new export department, and the opening of a midwest office are part of an extensive expansion program now under way by American Coils Co., reports M. Parcaro, executive general manager.

Construction of the first new annex, a supplementary warehouse unit, is now complete. Construction of the other four units is proceeding rapidly.

Export manager and head of the new department is Harold Rackin. Harold Moore is branch manager of the new midwest office, which is located at 215 W. Ontario St., Chicago.

T. W. Binder, president of American Coils Co., has just returned from an inspection tour of the company's expanding export and domestic fields. Recent trips have taken him to Florida and Cuba.

Harold Binder has been appointed production manager since his return from military service. Mr. Binder spent three years in the Army Signal Corps.

Further expansion of the American Coils Co. includes increased employment of plant and office personnel. Production facilities have been augmented by the addition of new machinery and methods, Mr. Parcaro stated.

Inexperienced Dealers Urged to Look Beyond the Immediate Lush Market

DETROIT—"The quality and not the quantity of retail dealers will be the rock foundation on which the future success of the electrical appliance business must be built," is the opinion of Gerald Hulett, vice president of Electromaster, Inc., based on some recent personal observations.

"The present tremendous demand for appliances; the ease with which a dealer can 'take on' or 'sign' to handle and sell a wholesaler's complete line; the confidence which a pocketful of money gives the inexperienced beginner; the possible paper profit a dealer's discount reveals before the fixed and sales expenses are deducted; the glamour of being in business for himself and being his own boss; are just a few of the many reasons why the appliance field is attracting hundreds of new dealers each week in cities, small towns, and hamlets from coast to coast.

"Few of the newcomers look beneath for facts to guide them in their new business venture. They are elated about the immediate business outlook and, over-anxious to 'get going,' are willing to take financial risks.

"Prewar sales records of most industries show that 20% of dealers obtained 80% of the available business year after year. There is no indication today that this sales ratio will change materially in the immediate future.

"Contrary to general belief, the established and experienced prewar appliance dealer organizations survived the war years remarkably well. In a survey among 158 utilities representing over 18,000,000 do-

(Concluded on Back Page, Column 1)

Monitor to Use Mansion For Research Center

NEW YORK CITY — Monitor Equipment Corp. has purchased the Campagna mansion in Riverdale, N. Y., and upon completion of minor changes early in May, plans to use the building as a "research center" for testing and developing of products in the home appliance field.

The mansion, located on a hilltop overlooking the Hudson river, was erected under the supervision of Anthony Campagna, builder and art patron, and is constructed throughout of "Doria" stone imported from Genoa.

Question of Trade-In, Servicing Agency Faces Reorganized Knoxville Appliance Bureau

KNOXVILLE, Tenn. — The Major Appliance Bureau here, which became nationally known before the war for its Code of Ethics and cooperation, has been reorganized.

A. Jesse Winegar, manager of the appliance department of Woodruff's, was named new president.

Others elected at a meeting of appliance dealers in February are: vice president, E. J. Sherwood, of O. P. Jenkins Co.; secretary-treasurer, Lawrence S. Wood, dealer coordinator of the Knoxville Utilities Board; directors, E. W. Roy of Roy Equipment Co., Charles Felknor of Lonsdale Furniture Co., Frank Oates of S. H. George & Sons, Joe Walker of J. Frank Walker Furniture Co., and Clyde Carpenter, Jr., sales manager of the Knoxville Utilities Board.

On an advisory committee which includes executives of some of the larger stores are: Ernest L. Fielden, sales manager of Fowler Bros. and Southern Furniture Sales Co.; David F. Baker, general manager of Woodruff's; A. R. Moore, manager of the Knoxville store of Sterchi Bros., Inc.; R. A. Jarnagin, president and general manager of S. H. George & Sons Department Store; L. H. Petree, vice president of Miller's Store Co.; F. R. Vehr, manager of the Sears, Roebuck & Co. Store.

Mr. Winegar reported the number of appliance dealers has increased 57% in the city of Knoxville since prewar days.

One of the questions to be decided is the establishing of a central agency which would set maximum allowances on trade-ins. Under the old plan, which was widely commented upon as a national model, maximum allowances were fixed for various old appliances. One clause of the Code of Ethics explains:

"A department has been set up to handle appraisals on old electric ranges and refrigerators. The first dealer to contact a customer will appraise the appliance and call in his bid. If this customer is contacted by another dealer he must call to see if this appliance has been appraised. If so, he will not exceed the first appraisal."

The old Code of Ethics is in effect until a new one is adopted by the reorganized bureau.

Another question yet to be decided concerns servicing. During the war emergency, the Knoxville Utilities Board opened a service department which was intended to help dealers who did not have their own servicing facilities. A dealer could ask K.U.B. service men to service an appliance for a customer or could refer the customer to K.U.B. The service was not intended for profit and it "just about broke even," according to Mr. Carpenter.

If the dealers want the service continued, then that will be done. And if the service is continued, then a proposal will probably be considered whereby a dealer could contract with K.U.B. for servicing his customers.

Classes for electrical appliance salesmen are also to be started. K.U.B. will arrange for movies and for talks. Each class will be in the dealer's store for his employes, but a class will be limited to 20 and the preferred number is about 15. The dealer can designate the time for the class.

Valley Freezer Gets Price

PARKWATER, Wash.—A walk-in freezer, Model No. 124, manufactured by Valley Lumber Co. here, will retail for $1,189, according to Order 405, recently issued by OPA under MPR 591.

Marketed under the name "Frigid," the unit is priced at $818 on sales to distributors and $892 to dealers. The model is equipped with a ¾-hp. condensing unit.

State Agencies Urged To Standardize Administration Of On-The-Job Training

Gen. Erskine Recommends Uniform Set Of Rules

WASHINGTON, D. C.—To resolve a large proportion of the existing questions concerning the procedure private companies should follow in instituting on-the-job training for veterans in their plants, a committee of experts under the direction of Maj. Gen. Graves B. Erskine, head of the Retraining & Re-employment Administration, recently issued a detailed set of standards recommended for State agencies in approving an industrial application for establishing such training.

Under the provisions of the "GI Bill of Rights" the Veterans Administration is authorized to pay regular educational benefits to those veterans engaged in apprenticeship work or on-the-job training. Critics of the program maintain that, since an apprenticeship follows a long-established pattern in agreements between employers and trade unions or associations, there could be little question of the procedure and standards to follow.

MORE ELASTIC DEFINITION

On-the-job training, however, is newer, more elastic, has less precise standards, and is ostensibly under the control of State boards of education, many of which have almost no standards at all, it was claimed. The risk for the veteran, lies in the fact that he might undertake to learn work that has little value to him and may result in wasting his time and educational benefits.

In an effort to prevent such a condition from developing Gen. Erskine's committee recommended the following standards:

(A) Initially, an establishment desiring to undertake an on-the-job training program under Public Law 346 should be required to submit to the state approving agency a written application explaining the course of training for each job in which a veteran is to be trained. The application should cover the following points:

1. Title and description of the specific job for which the veteran is to be trained.

2. Length of the training period in hours. (Not less than 500.)

LIST DESCRIBING TASKS

3. Schedule listing various operations for major kinds of work or tasks to be learned, including the job operations or work tasks to be performed and the approximate length of time to be spent on each operation.

4. Wages or salary to be paid at the beginning of the training program, at each successive step in the program, and at the completion of training.

5. Wage or salary paid by the establishment to employes trained in the kind of work in which the veteran is to be trained.

6. Number of hours of supplemental instruction that will be required.

(B) The state agency should consider for approval only those establishments offering training programs which are submitted in conformity with the foregoing specifications and only those companies, which, upon investigation, are found to have met or made provisions for meeting the following criteria:

1. Training content adequate to qualify the veteran for appointment to the job for which he is trained.

2. Reasonable certainty that the job for which the veteran is to be trained will be available to him at the end of his training, as evidenced by such factors as the ratio of trainees, (veterans, and non-veterans) to trained workers.

3. A job not in a standard wage classification in which progression or appointment to the next higher classification is based upon such factors as length of service and normal turnover, and not upon skills learned through organized training on the job.

4. Wages to be paid the veteran for each successive period of training not less than those customarily paid in the establishment and community to a non-veteran trainee for the same job. Wages in conformity with State, Federal laws, or an applicable bargaining agreement.

5. A job customarily requiring the period of training justifying the establishment of a complete training program of not less than 500 hours.

6. A training period no longer than that ordinarily required by the establishment and others in the community to provide the trainee with the necessary skills, accounting for the acquisition of job knowledge, technical information, and other facts which the veteran will need to become competent.

7. Provision for related instruction.

8. Adequate space, equipment, instructional material, and instructor personnel in the establishment to provide satisfactory training on the job.

9. Records to show the progress made by the veteran.

PRIOR EXPERIENCE CREDITED

10. Credit given to the veteran for other job experience (military or otherwise). His beginning wage adjusted to the level to which such credit advances him and his training shortened accordingly.

11. Other employes of the establishment advised of the training program.

12. State agency access to the establishment for the purpose of assisting in the development and improvement of the training program.

13. A copy of the State-approved training program supplied to the veteran by the employer.

14. Issuance to the veteran upon completion of his training a certificate indicating the length and type of training provided, and attesting to his competency.

Gen. Erskine emphasized that the Federal government does not have the power to enforce these standards, but can merely recommend that the state agency comply with them in approving on-the-job training programs within its jurisdiction.

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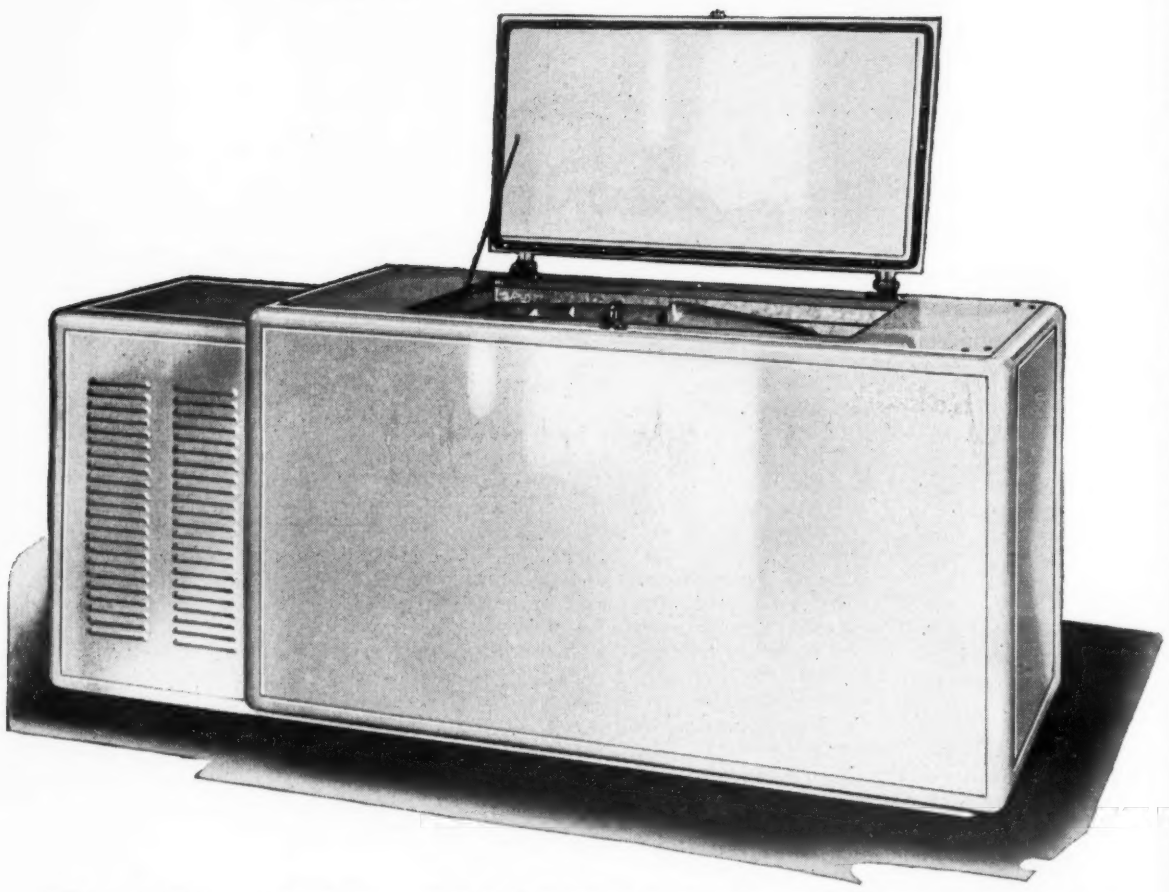

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PLAN FOR IMMEDIATE DELIVERY

NOW available, these modern post-war built cabinets come to you complete except for motors . . . or less motors and condensing units. You install condensing units and/or motors and produce as your OWN brand. These cabinets are ready to be delivered to you, either singly or in quantity . . . NOW.

Cabinet 15 cu. ft. comes with valves and controls, plates and connections installed, ready to mount units and/or motors. Length is 80" overall, 34" high for easy packing and 27½" wide to permit passage through any standard door. Six pound density fibreglass insulation (equal to 1½ times its thickness in ordinary insulation efficiency) is vapor-sealed into the cabinet . . . a sure protection against moisture damage. Top opening lid as shown prevents "spill" of cold air; and positive "frost-break" provides ease of opening. Hardware is smartly appointed and chrome plated.

Made by manufacturers of controlled temperature equipment for over twenty years, these fine boxes, beautifully constructed, are of latest design with sturdy 18 guage all steel construction, bonderized and finished in baked white enamel. They may be offered as premium quality and priced to suit the most discriminating customer. Limited quantity available complete—*Act at once.*

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"V-METH-L" (Methyl Chloride)

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Penn Appointed to Post With Balke-Collender

M. P. PENN

* * *

Will Head Refrigeration Engineers At Muskegon

MUSKEGON, Mich. — Brunswick-Balke-Collender Co. has announced the appointment of M. P. Penn to the position of chief refrigeration engineer at its Muskegon plant.

Mr. Penn succeeds W. G. Winkler who resigned recently to accept a position with Reynolds Metal Corp. in Louisville, Ky.

Accompanying the announcement of Mr. Penn's appointment, Brunswick revealed plans for the expansion of its refrigeration program. It is estimated that new facilities now being installed will nearly double the present production of Brunswick "Blue Flash" sliding top coolers and freezers.

Mr. Penn was recently discharged from the Army Air Forces in the rank of lieutenant colonel. Prior to his Army service, Mr. Penn was employed by Frigidaire for 12 years in the research and commercial engineering division.

Government Reports On German Refrigeration

WASHINGTON, D. C.—A report on the German refrigeration industry has just been released by the Office of the Publication Board, Department of Commerce.

The report, made for the Joint Intelligence Objectives Agency by E. T. Simonson of the U. S. Engineers, is available from OPB (PB-4175; photostat, $2.00; microfilm, 50 cents; 33 pages).

The report briefly describes representative refrigeration plants throughout Germany and discusses the adaptation of the industry to needs of the German army. It supplements an earlier report by the same author on the German refrigeration industry, also available from OPB (PB-205; 50 cents per mimeographed copy; 64 pages).

Orders for reports should be addressed to the Office of the Publication Board, Department of Commerce, Washington 25, D. C., and should be accompanied by check or money order, payable to the Treasurer of the United States.

Fraser & Johnson Buys San Francisco Warehouse

SAN FRANCISCO — A former warehouse building here has been acquired recently by the Fraser & Johnson Co. for conversion to an industrial plant, comprising approximately 80,000 sq. ft. of additional manufacturing and storage space.

Manufacturer of freezers and heating equipment, the company is said to have invested $100,000 in this, its second plant in the San Francisco area.

The freezing equipment, which includes low temperature cabinets, is a relatively new venture for the company whose main business heretofore has been the manufacture of sheet metal products. With a nine months' backlog of orders already, Fraser & Johnson hopes to double its present staff of between 150 and 175 when the new plant is completed.

Copper, Coal Strikes May Force G-E To Cut Output Of Electrical Devices

SCHENECTADY, N. Y.—If the copper and coal strikes are not settled soon, output of electrical devices at General Electric Co.'s apparatus department here will be drastically cut, warns Neil Currie, Jr., manufacturing manager of the department.

Production of many items had reached pre-strike levels, but the manufacture of some items has been delayed from six to 10 weeks because of material shortages resulting from strikes in other industries, Mr. Currie said. Even before the electrical workers' strike the materials shortage was critical, he added, and the situation became more serious with the steel and copper strikes.

G-E will soon be out of copper, which it requires in almost all of its products, if strikes continue in copper mines, refineries, rod mills, and fabricating plants, while the coal strike is beginning to hit suppliers of steel.

Considerable work still remains to be done to bring production of large electrical machinery up to pre-strike levels, he said, pointing out that some types of apparatus under test or being assembled had been taken apart and treated with preservatives when it appeared the electrical workers were certain to strike.

Viking Self-Contained Conditioners Priced

CLEVELAND—Maximum prices to be used in sales of a self-contained air conditioning unit manufactured by The Viking Mfg. Corp. here in two types were recently issued by OPA.

Order 403, MPR 591, established the following ceilings:

	On Sales to—		
	Distributors	Dealers	Consumers
Model 0-30 three-phase	$469.50	$587.80	$881.25
Model 0-30 single-phase	521.47	651.84	978.75

La Crosse Cooler Moves Into New Postwar Plant

LA CROSSE, Wis.—Preparing for increased demands for commercial refrigeration products, the La Crosse Cooler Co. moved into its modern plant here on April 22.

The new plant, first unit of an extensive postwar expansion program, provides approximately 40,000 sq. ft. of production space and contains complete new finishing facilities, conveyor line assembly equipment, modern tool room, and production machines.

The plant, located at 2809 Losey Blvd. South, is adjacent to the main line of the Chicago, Burlington & Quincy Railway Co. and is situated near the foot of the Mississippi bluffs.

The La Crosse Cooler Co., formerly the La Crosse Novelty Box Mfg. Co., has undergone four expansions in its 10-year history. The company manufactures beverage cooling and dispensing equipment, walk-in and reach-in coolers, and farm milk coolers.

Peck To Direct Research And Development at Victor

HAGERSTOWN, Md. — Fred G. Peck, formerly chief engineer of the heat transfer division of M & E Co. has been appointed director of research and development at Victor Products Corp. here, announces J. K. Noel, Sr., president.

For the past 20 years, Mr. Peck has specialized in development and manufacture of refrigeration equipment with special emphasis on heat transfer problems as related to room coolers, beverage and water coolers, and commercial refrigeration products.

Beverage Cooler Ceiling Set

GARLAND, Tex.—A retail ceiling price of $1,250 has been authorized by OPA for a 36-case refrigerated beverage cooler manufactured by Southern Aircraft Co. here. Other ceilings set for the unit by Order 429, MPR 591, are: to distributors, $750; to dealers, $875.

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steel insulation
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Ferro-Therm Was Used For:

LOW-TEMPERATURE ALTITUDE CHAMBERS
(minus 60° F. to minus 100° F.)

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A.A.F.—Wright Field—Carburetor Test Chamber, Turret Chamber, Armament Lab., Equipment Lab., Aero Medical Lab., Radio Lab., Cabinet Supercharger Chamber.
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Naval Air Stations—Corpus Christi, Tex. (2), Jacksonville, Fla.; Pensacola, Fla.; Opa Locka, Fla.
Naval Medical Center—Bethesda, Md.
Naval Bureau of Aeronautics—San Diego, Cal.; Seattle, Wash.; Norfolk, Va.
Univ. of Pennsylvania—Medical School.
Yale University—New Haven, Conn.
Sperry Gyroscope Co.—Great Neck, L. I.
Ford Motor Co.—Willow Run, Mich.
Pump Eng. Service Corp.—Cleveland, Ohio
General Motors (Allison Div.)—Indianapolis
Bendix Aviation Corp., (Eclipse Aviation Div.) —Bendix, N. J.
Chance Vought—Stratford, Conn.
Naval Research Lab.—Anacostia, D. C.
N.A.C.A. Chamber—Langley Field, Va.
Army Proving Ground—Aberdeen, Md.

LOW-TEMPERATURE STATIC COLD ROOMS
(minus 70° F. to minus 100° F.)

Republic Aviation Corp.—Farmingdale, N. Y.
Vultee Aircraft, Inc.—Vultee Field, Cal.
Mayo Clinic—Rochester, Minn.
Naval Aircraft Factory—Philadelphia, Pa.
Eastman Kodak—Rochester, N. Y.
Naval Torpedo Station—Newport, R. I.
National Research Council—Ottawa, Canada
A.A.F. Triple Cell Room — Wright Field, Dayton, Ohio

ALL-WEATHER ROOMS
(plus 165° F. to minus 125° F. with Maximum Humidity)

A.A.F. — Wright Field — Aircraft Radio Lab.; Aero Med. Lab.; Fuel & Oil Test Lab., Equipment Lab.
Fairchild Aviation Corp.—New York, N. Y.
Grumman Aircraft Corp.—Bethpage, N. Y.
Western Electric Co.—Kearny, N. J.
Naval Research Lab.—Anacostia, D. C.

★

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During the war, Ferro-Therm was used only in high-priority and important governmental insulation projects. This *steel* insulation solved problems of *extreme temperature* maintenance that demonstrated its superiority over all other insulating material.

The list of installations at the left are demonstrations of the kind of performance that Ferro-Therm gives. Our engineers can now apply to your insulation problems the same material and the same "know-how" that were the solution to these critical wartime problems. Write to us today about your requirements.

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Westinghouse and Union Continue Wage Parleys

PITTSBURGH, April 25 — Little progress has apparently been made in finding a solution for the end of Westinghouse Electric Corp. strike, which has continued for more than 100 days. The most encouraging development has been the recent resumption of negotiations between Westinghouse executives and officials of the striking United Electrical Workers (CIO).

Adjustment of the incentive pay system from wartime to peacetime scales is the central issue of present parleys, revealed James J. Matles, the union's director of organization. This would include the important item of the day worker's bonus, it was indicated.

Enactment of New Price Law Seen for June

WASHINGTON, D. C. — Experienced observers of the political scene here believe that it will be June before the law extending the Price Control Act is enacted.

They look for a long debate in the Senate on the amendments calling for "cost-plus-profit" pricing on all items, abolition of cost absorption by distributors and retailers, and other provisions which were made by the House.

It is felt that the amendment which would prohibit the OPA from forcing distributors and dealers to absorb part or all of any price increases granted manufacturers has a pretty good chance of getting by the Senate.

Foundries--

(Concluded from Page 1, Column 4)

hearth furnaces. They can continue to melt their scrap for pouring into high grade industrial castings as long as power and gas are available, but they are becoming concerned over a possible shortage in pig iron.

Chief problem of the foundries, at the moment, however, is not so much coal, coke, and pig iron supplies, but prices. Under present price regulations, gray iron casting makers have to sell the same castings to old customers at the rate prevailing in February, 1942, plus a 10% industry-wide increase granted last year.

If they make a new casting for a new customer, they can set the price according to a formula based on their average earnings in 1936-39 plus the 10% increase. Having to meet increased labor and materials costs, not a few foundry men say they have been forced to tell their old customers to take their patterns "across the street" to another foundry.

"The OPA has actually caused inflation in the gray iron industry," contends W. W. Coutts, executive vice president of the Gray Iron Founders Society, Inc., a trade group.

"For example, the ceiling on a customer's castings might be $1. The foundry will lose money making it at that price so it asks the customer to take his pattern and try elsewhere. Maybe the customer gets it made in another shop, under its ceiling price, for $2, whereas the original maker, allowing for his greater know-how and experience in making that kind of casting, might have been able to make it profitably for $1.25."

N.E.W.A.--

(Concluded from Page 1, Column 3)

all markets," and characterized the interdependence idea as "the one sure way we can all work together to build a highway of demand."

The reading of the N.E.W.A. adaptation of the declaration was introduced by Herbert Metz, chairman, N.E.W.A. Planning Committee, who pointed out that the electrical industry has "actually built, distributed, and installed independence in America from almost everything that has been back-breaking and morale-breaking." And our industry, he said, has recently announced its interdependence.

Following the reading of the declaration by a "Town Crier," the document was signed, on behalf of the association, by President Busey.

Mr. Metz then described the "Tenets" of the electrical wholesaler as one answer to the "common sense of good public relations."

"It is time," he said, "we stood up to be counted, time to tell exactly who we are and what we do." He emphasized the need for much greater and sustained sales effort by electrical wholesalers, adding "simply because there cannot be and never will be mass production without the key steps of mass selling and mass distibution."

The tenets, which were read by Secretary Alfred Byers from the "viewing screen" of a large television set, stated that "N.E.W.A. members realize that the electrical wholesaler's key position in our national economy requires a specialized program of service to manufacturers and buyers alike."

Text of the declaration follows:

DECLARATION
Of Electrical Interdependence

When, in the course of scientific progress, the great power of electricity was first directed to the service of mankind, and in the brief measures of these sixty-seven electrifying years has transformed our national life, a proper respect for the electrical wholesaling industry's responsibility toward the coming Electrical Age requires that all electrical wholesalers shall now publicly declare their sense of obligation and interdependence.

We hold these truths to be self-evident:

That it is the manifest destiny and privilege of the electrical industry to remove from the American scene every last vestige of avoidable, unnecessary and wasteful hardship in living and working!

That our industry has immediately before it the opportunity to create patterns of electrical use for American homes, industries, farms and every major portion of American enterprise, all of which have used but a fraction of the strength of electrical service that is theirs to command;

That the shadowy dreams of the founding fathers of our industry are just now being seen on the horizon of tomorrow's Electrical Age in the full perspective of their promise;

That we, the members of the National Electrical Wholesalers Association, who have developed a new spirit of cooperation and reached unimagined achievements in the fire of world conflict, do fully realize the true measure of the electrical industry's responsibility to the future economic health, welfare and progress of our beloved country;

That, because the patterns of electrical products have and will increasingly become the very form, in fact the life-blood, of every phase of life in the Electrical Age just beginning;

That, in consequence, we, as electrical wholesalers, because of our key responsibility in the distribution of electrical products, hereby join with electrical manufacturers in saying to the American people, "We will do our part in bringing to the markets more products and better products at less money, and thereby, help to create and maintain the high levels of employment vital to our future!"

That we can and do say to the American people, "the great power of Electricity will make your living and working conditions better, healthier and happier;"

Therefore, the men and women of the electrical wholesaling industry who today deal with this great force now grown from a single glowing filament into a billion-pronged servant of progress, realizing their obligations and the increasingly complex character of their respective undertakings, do hereby declare—

RESOLVED . . . that all Members of the National Electrical Wholesalers Association recognize their common cause for progress into the Electrical Age; that all recognize the factor of electrical interdependence between branches within our industry; that all will henceforth be ardent supporters of the electrical idea to the end that this Declaration of Electrical Interdependence shall become a living document in honor of our pioneers and in trust for the welfare of those who follow.

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(1) 14 Ga. all-steel welded outer shell and undercarriage; rust-proofed; moisture-sealed seams.
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(3) 16 Ga. steel partitions, extra cooling surface.
(4) 20 Ga. stainless steel sales compartment top.
(5) Glossy white enamel finish, easy to clean.
(6) 6-inch water repellant certified insulation.
(7) 20 Ga. all-steel superstructure with spot-welded price runners (holds 54 price-strips).
(8) Polished plate glass mirror for extra display.
(9) Indirect, non-glare fluorescent lighting.
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(14) Outside dimensions: Length, 84 inches, Height 75 inches, Width 33 inches.

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PROP-R-TEMP self-contained air conditioning units are a natural for an eager market. Attractive, compact, easy to install, inexpensive to operate, built with the moving parts completely accessible, PROP-R-TEMP represents an achievement in air conditioning engineering. Available in 3 and 5 ton units.

Tested Typhoon equipment for smooth performance on all types of conditioning systems is now available for prompt delivery.

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Several dealer territories open. Inquiries and orders receive prompt attention.

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Liquid Carbonic Cabinet Prices Set By OPA Order

CHICAGO—Authorization of maximum prices for four sizes of Liquid Carbonic Corp.'s ice cream cabinets was recently granted by OPA in Order 404, MPR 591.

The prices follow:

Model	Jobbers	On sales to—Ice cream manufacturers	Consumers
4-hole double row	$147.40	$163.00	$236.00
6-hole double row	198.00	219.00	317.00
8-hole double row	234.20	259.00	374.00
12-hole double row	283.20	313.00	455.00

'Drive-In' Service On Small Items Is Allen Repair Shop Policy

ST. LOUIS—A new organization opened here for home appliance repair service is Allen Electric Co., at 3195 Morganford Rd. The company held its grand opening April 20, giving away refrigerator water jars as gifts, and drew a crowd of 3,500 visitors in two days.

Formerly located at 3407 South Jefferson, the new company, headed by Edward Allen, will feature sales, service, and repairs on all types of refrigerators, home freezers, air conditioning, and electrical appliances. A special feature will be "Drive In Service" on small appliances such as radios, irons, etc., whereby customers may wait in their cars for the work to be turned out. Space is provided for six cars.

The firm also will feature free pickup and delivery on all repair service except refrigerators, which will be repaired in the home. Low-bed trailers pulled by half-ton trucks will be used for quick delivery and call service.

Six service mechanics, all war veterans, are being trained for refrigeration service, with a nucleus of experienced repairmen as the "faculty."

Williams & Co. Opens Toledo Parts Warehouse

TOLEDO — Formal opening of a new warehouse was held here recently by Williams & Co., Inc., refrigeration and parts supplies wholesaler. In addition to monel, nickel, stainless steel, aluminum, brass, copper, boiler tubes, welding wire and supplies, welding machines, and safety equipment, the firm plans to stock a complete line of refrigeration and air conditioning supplies and equipment.

Williams offices are also located in Pittsburgh, Cleveland, Cincinnati, and Columbus, Ohio.

Nelson Co. Forms Parts Supplies Department

PUEBLO, Colo.—The N. O. Nelson Co. here announced the opening of its refrigeration and air conditioning supplies department handling parts and accessories for refrigeration and air conditioning units at 122 East River St. here under the supervision of M. L. Nessen.

Lines distributed by the company include: Ansul refrigerants, Alco valves, American Injector products, Detroit Lubricator valves and controls, Henry Valve products, Minneapolis-Honeywell equipment, Penn Electric controls, Mueller Brass fittings, Prest-O-Lite tools, Chicago Seal products, Ranco controls, and others.

Carl J. Recker Appointed Acklin Co. Purchasing Agent

TOLEDO—Carl J. Recker, steel buyer for the past five years, has recently been appointed purchasing agent for the Acklin Stamping Co. here, manufacturer of compressor bases and stamped hermetically sealed housings. In making the announcement, W. Williams, assistant sales manager, added that George J. Bleim, vice president in charge of purchasing, has resigned his post.

ACRMA Prepares Book Outlining Properties of Common Refrigerants

WASHINGTON, D. C.—"Properties of Commonly-Used Refrigerants" is a new publication prepared by the Air Conditioning and Refrigerating Machinery Association, Southern building, here.

With almost a hundred pages of text, chart, and tabular material dealing with ammonia, methyl chloride, "Freon-11," "Freon-12," and "Freon-22," this comprehensive and authoritative manual on these refrigerants is designed to meet a widespread demand from users and installers of refrigeration and air conditioning equipment, as well as consulting engineers and architects. Price of the publication is $1.00, postpaid.

A revised and substantially expanded edition of the "ACRMA Equipment Standards" is scheduled for publication by the association late this summer.

Mason Supply Co. Starts New Branch in Charleston

COLUMBUS, Ohio—A new branch store has been opened in Charleston, W. Va., by the Mason Supply Co. here, Nedford K. Mason, manager, announces. The Charleston branch, carrying a complete line of refrigeration supplies and washing machine parts, will be under the supervision of Ralph Parker. Location of the store in Charleston is 745 Virginia St.

Smith & Lowman Represents Airtemp in Cincinnati Area

CINCINNATI—Chester A. Smith and M. G. Lowman have formed Smith & Lowman, Inc. as direct factory representative for Chrysler Airtemp air conditioning equipment in the Cincinnati area. They have leased 2,000 ft. of space in the Doctors Bldg. for the new venture, it was reported.

Stanley Baldwin Named New Vice President Of Joseph Simons Co.

HARTFORD, Conn. — Stanley N. Baldwin was appointed vice president of the Joseph Simons Co., wholesaler of refrigeration equipment, parts, and supplies, at a recent meeting of the board of directors.

Prior to joining the Simons organization two years ago, Mr. Baldwin was refrigeration service manager for Bauer & Co., Inc., contractor here, and before that he was with Frigidaire Corp. in Boston.

For the past two years, he has been teaching refrigeration servicing at the Connecticut state trade school evening sessions.

Mr. Johnson is also active in R.S.E.S. affairs, being chairman of the educational committee of the central Connecticut chapter, in addition to serving on the advisory committee to determine the need, and to devise ways for holding a full time refrigeration course in the trade school.

30 Service Men Graduate From First Six-Week Course at York Institute

YORK, Pa.—The York Institute of Refrigeration and Air Conditioning graduated its first class on April 5, this class consisting of 30 commercial field service men who had completed a six-week course of instruction in the servicing of York commercial equipment.

Because of the critical housing situation, community minded York citizens opened their homes to these men who came to York from United States and foreign points as far distant as Santiago, Chile, and Melbourne, Australia.

S. E. Lauer, president of the York Corp., presented each man with his diploma and congratulated the class upon their successful completion of one of the most highly developed short courses in the theory, operation, and maintenance of refrigerating and air conditioning known in the industry.

Another

KEROTEST.....

KEROTEST was among the FIRST manufacturers to recognize the Air Conditioning and Refrigeration Wholesaler and to distribute Kerotest Products through these Wholesalers, because of their excellent service facilities ...The Kerotest Policy is to continue this satisfactory method of distribution

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Tests In Muncie Home Revealed Broader Field For Reverse Cycle Home Heating

But Developers of 'Marvair' Unit See It Only For 'Specially Built' Houses; Use of Water Advocated

By Ross Potter

CHICAGO — Practical possibilities of reversing the refrigeration cycle so that the same system can effectively heat or cool a home all year around were presented by M. M. Smith, vice president of Muncie Gear Works, to the members of the Edison Electric Institute at their twelfth annual sales conference.

The principle of the reverse cycle system, or heat pump, is one in which the basic refrigeration cycle remains the same but its application is altered, he said. Heat is still extracted at a low temperature and discharged at a high temperature, but instead of using the cooling effect and throwing away heat at the condenser, the cooling effect is ignored and the heat utilized.

The heat gain can be used directly, as hot air, Mr. Smith explained, or it can be transferred to hot water that can be piped around the house. Factors such as temperature limits, application, and economy all vary according to the heat source used and the conditions of the job to be done.

Reverse cycle units have been used effectively in small industrial installations for some years, but never before have been presented as a practical commercial venture for domestic application. Such a unit now has been developed by the Muncie Gear Works, Mr. Smith disclosed, and has been in constant operation in a Muncie (Ind.) home for more than a year.

After a thorough study of refrigeration cycles, potential heat sources, a determination of various requirements to be met, and associated technical problems, Mr. Smith reported, "the Marvair" unit was designed, tested, and installed in a private home on Nov. 27, 1944.

The house used in the experiment was one story high, 30 ft. x 28 ft. 6 in. square, with a 20 ft. garage and basement partially heated. Its construction: plastic on rock lath and cellotex, with wood siding, he said. Ceiling insulation, over the living quarters only: 3 in. blanket type Balsam wool.

The system's operation was recorded over 28 weeks, until June 11, 1945. During that time 4,533 degree days were charted, and 8,070 kilowatt hours used. (In determining a degree day, the basic temperature figure of 65° F. is used. The *average* number of degrees less than 65° registered outside over a period of 24 hours determines the degree day total.)

The home was kept at 78° F. day and night—an unusual load, Mr. Smith pointed out. In contrast, a chart of estimates for the same home located in major cities across the country, held at normally desired temperatures of 72° during the day and 68° at night, would have shown a varying heat load, he illustrated (see Table I).

Table 1—Projection of Power Use by Cities

Table I: Degree Days and Kwh Consumption for Muncie Home If Located in Other Cities

City	Degree Days	Kwh's Used
New Orleans	1,024	1,536
San Francisco	3,264	4,896
Indianapolis	5,298	7,947
New York City ...	5,347	8,020
Denver	5,874	8,811
Minneapolis	7,850	11,775

An adequate source of heat often is the chief problem in successfully operating the reverse cycle system for heat, Mr. Smith declared. Under ideal conditions, the compressor should operate at the highest possible evaporating temperature and the lowest possible condensing temperature; these two conditions would realize maximum capacity and minimum power consumption, he stated.

It is also true, he pointed out, that there are applications where the heat pump is plainly impractical. If the coefficient of performance is not greater than 3 to 1, the system will not be economical to operate.

The source of heat, for instance, should be 50° F. or higher. In warm climates, the outdoor air may be used, Mr. Smith stated; in cooler climates, an adequate supply of well water is the best source, so long as its temperature runs consistently about 50°.

Of the two sources, water is preferable, he said. Its heat transfer rates are higher, and its heat capacity is larger. Having a greater density than air, a lesser weight and volume is required.

As a result of investigating the possibilities of obtaining heat from water without wasting the water used—a factor that must be considered where a water supply is limited, Mr. Smith pointed out—several systems of using ground water and of using the earth's heat as a source were worked out at Muncie.

Rural areas as a rule do not suffer this limitation, he stated. Wider spacing of houses offers less drain upon the ground water level, and controlled runoff returns used water to continuously replenish the supply.

The Marvair unit is being produced in two sizes, Mr. Smith reported, one with a 3-hp. compressor, the other with a 5. Maximum efficiency in each case is possible with a 50° water as the heat source (see Table II).

Table II—Specifications Of Two Sizes of Systems

Table II: Specifications for Two Marvair Units Available

	3 hp.	5 hp.
Motor size	3 hp.	5 hp.
Width	26¾"	26¾"
Length	39¾"	39¾"
Height	33¾"	33¾"
Weight	785 lbs.	975 lbs.
BTU capacity	50,000	80,000

The chief domestic market for reverse cycle heating will be new homes specifically designed and insulated for such a system, Mr. Smith believed. And its utilization will make the construction of completely all-electric homes possible and practical.

For under sound engineering, reverse cycle heating will allow sufficient temperature regulation of a house with one third greater heating requirements than is now considered maximum, he claimed. The unit is not practical for homes already built, he said, or for areas not yet developed for increased domestic power consumption.

From the utilities' point of interest, the reverse cycle unit is potentially several times larger, as a power market, than present household requirements. Where an electric range and water heater already is in use, its addition will increase power consumption more than 300%, Mr. Smith claimed: where gas is used, the increase may go as high as 1,000% (see Table III).

Table III—Power Use In True All-Electric Home

Table III: Energy Consumption in the Electric Home of Tomorrow

Equipment Used	Without Electric Heat or Air Cond'g	Heated and Air Cond'd Via Reverse Cycle System
Electric clocks	14	14
Toasters	15	15
Vacuum cleaners	20	20
Washing machines ...	24	24
Space heaters	45	45
Flatirons	64	64
Percolators	72	72
Radios	80	80
Ironing machines	100	100
Roasters	225	225
Refrigerators	312	312
Lighting & misc.	346	346
Ranges	975	975
Water heaters	2,625	1,308
House cooling	0	2,000
House heating	0	8,900

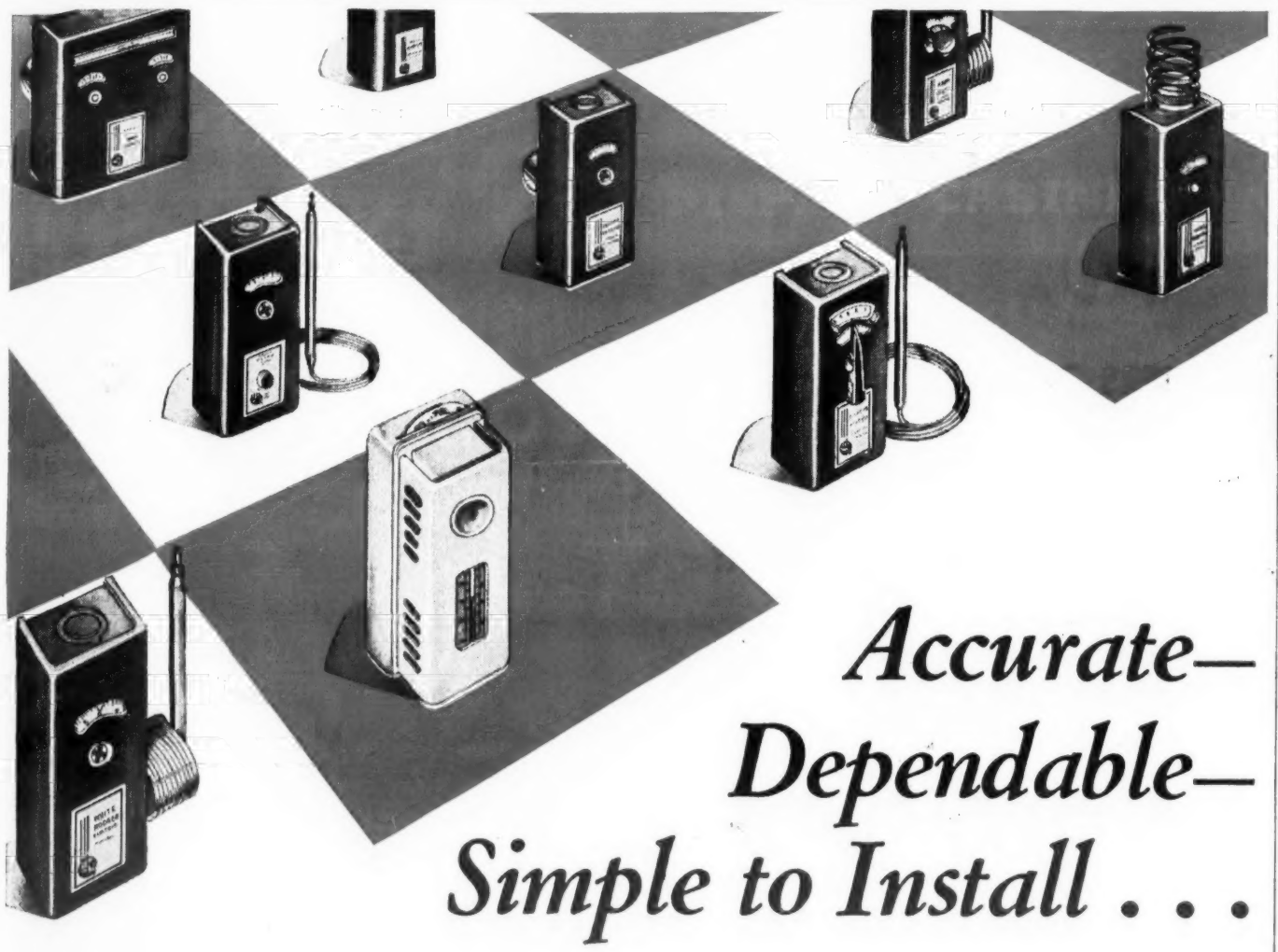
In its present form, the Marvair unit will give a coefficient of more than 4 to 1, Mr. Smith stated—which places it in direct competition with other means of automatic heating. Further developments are under way, he added; for heating ratios of 5 to 1 are in sight.

The combination unit promises to be available at only moderate additional cost, he claimed. From a purely cost standpoint, he pointed out, no automatic heating system can compete with hand-fired coal or wood circulating heaters. The advantage of an automatic system is one of convenience, of safety, and of saving through a number of ways that add up to a considerable total.

The saving in cleaning bills is paramount among these, he said—in the rugs, draperies, curtains, upholstery, wallpaper, and clothes that do not have to be cleaned nearly so often.

In a home planned for automatic heating, no chimney construction is necessary, he added. The cost of springtime and fall heating is proportionally much less with automatic heat. And, with safety controls, possibility of fire moves almost out of sight.

Modern heating plants are included in the initial cost of homes planned for them, he emphasized. The few extra dollars a month, when spread over a long amortization plan, represents a small price, he predicted, for the cleanliness, dependability, and safety gained.



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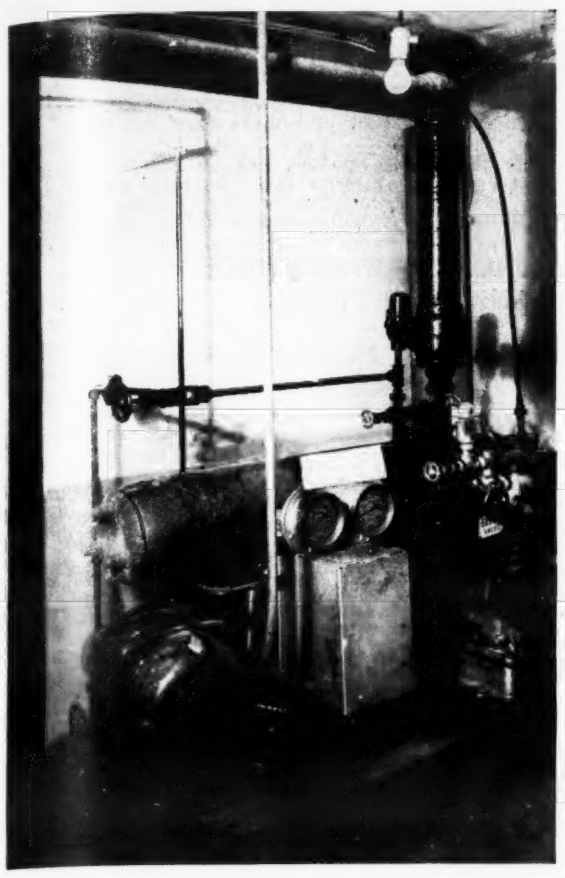
Fruit Exchange Replaces Old Style Plant With Airtemp Unit



A striking example of what can be done with the latest type of commercial refrigeration equipment in terms of complete refrigeration delivered from the most compact equipment, and in protection of controls and parts, is demonstrated in the above "before and after" pictures. They show a Chrysler Airtemp 3-CUD "packaged" commercial refrigeration system (on the right) which replaced the concrete mounted refrigeration "plant" shown on the left. Installation is in the Madison Fruit Exchange in New York City and serves a walk-in box, a vegetable refrigerator, and a 14-foot display case.

* * *

NEW YORK CITY—Replacing an obsolete ammonia plant, a Chrysler Airtemp packaged commercial unit is now providing refrigeration for a butcher's walk-in refrigerator, a vegetable refrigerator, and a refrigerated showcase in the Madison Fruit Exchange here, Airtemp Division of Chrysler Corp. reports.

The 3-hp. unit, Model 3-CUD, is said to maintain a temperature of 34° F. in the 15 x 8 x 10 ft. walk-in, the 8 x 8 x 10 ft. vegetable refrigerator, and the 14-foot display case. Advanced Refrigerating Co. made the installation.

Main advantages cited for this unit are lightness, compactness, and conservation of floor space. These features are contrasted to the massiveness of the ammonia installation.

Fully automatic controls are listed as another advantage of the 3-CUD. Because of the high operating pressure, completely automatic control of old-style ammonia plants may be impractical, it is stated.

"Many old and obsolete refrigeration plants do not have an automatic water-control valve to regulate water flow through the condenser," Airtemp points out. "The water flows through at full force from the time the compressor starts until it stops.

"Airtemp 'packaged' refrigeration units have a water regulating valve, actuated by discharge pressure, which regulates water flow through the condenser and conserves water."

Special foundations required by old-style compressors are not needed for the 3-CUD, it is claimed.

2 Sanitary Farm Freezers Assigned Price Ceilings

FOND DU LAC, Wis.—Two models of Quicfrez farm freezers manufactured here by the Sanitary Refrigerator Co. were ceiling-priced for sales to distributors, dealers, and consumers at the following levels:

	On sales to— distributors	dealers	consumers
Model 1245 Quicfrez, less motor only	$200.50	$240.60	$401.00
Model 1245 Quicfrez, less condensing unit	147.00	176.40	294.00

These prices were established by OPA in Order 416, MPR 591, and are subject to the usual discounts and allowances.

Correction

A story in a recent issue of the NEWS describing a new A&P supermarket in Grosse Pointe, Mich., incorrectly identified one of two open type frozen food display cases in the store. In making the installation the top canopy of a Hussmann case was removed to line it up with a case of another make, and because the Hussmann nameplate appears only on the canopy, clerks in the store gave the wrong name to the NEWS.

Service Men Warned To Keep Abreast Of New Credit Policies, Trade Developments

MADISON, Wis.—Members of the Wisconsin State Chapter of the Refrigeration Service Engineers Society were cautioned at their recent convention here that generally tightened credit policies of suppliers make it imperative for service men to keep collections rolling in or they may find themselves out of business.

This advice came from Herman Goldberg, Chicago manufacturers' representative, speaking at the meeting held in the Park hotel.

"Bear in mind," Mr. Goldberg warned, "that your jobber or other sources of supply will only do business with you up to the point that they will feel sure they will receive payment. . . .

"While in the past it was possible at times for a service organization to purchase from a number of jobbers at a slow rate of payment, I feel that the possibilities of doing business on that basis are very remote from this point in, because all business men today are aware that it is going to be absolutely necessary to collect for services rendered or merchandise shipped.

"Unless you yourselves are able to collect from your customers, so that you in turn will then be able to pay your invoices to your suppliers, you might find yourself with a lack of operating capital sufficient to run your business. . . . While it is easier to tell a customer that you will collect later for your services, it may be harder for you to pay your own bills if your customer doesn't pay you in time."

Mr. Goldberg also warned that repairmen concerned with maintaining the goodwill of their customers will resist the current temptation to overcharge for their services. Noting that "most of you can choose your jobs or customers and charge practically as much as you want to for your services," he said:

"I know that most of you are conservative and are doing the best you possibly can to cause lasting satisfactory relationships between your customers and yourselves, because as many of you undoubtedly have recognized, the over-charged customer merely switches from one source of supply to another. . . .

"It is no secret then that by charging a sufficient amount for services rendered, and at the same time to avoid over-charge, that the most satisfactory customer relationship can be held by the service men."

Although acknowledging that "a good bit of service work will be taken from the general trade which you are enjoying" when full production is achieved and prewar guarantees resumed, Mr. Goldberg pointed out that "the mere fact that these new refrigeration units will have to be sold and installed to a great extent means new opportunity. . . ."

"Further," he continued, "as new units come into the field, we must remember, too, that many manufacturers are developing and processing new uses of refrigeration which up to now have not been used in the way of comfort refrigeration, commercial refrigeration, or in industrial refrigeration application.

"The trained men to handle these ideas, which now mainly are past the drawing boards, are none other than yourselves. It is foolhardy to think that it is possible for men taught in schools alone to have full and complete knowledge of refrigeration, unless they have had practical years of experience, too."

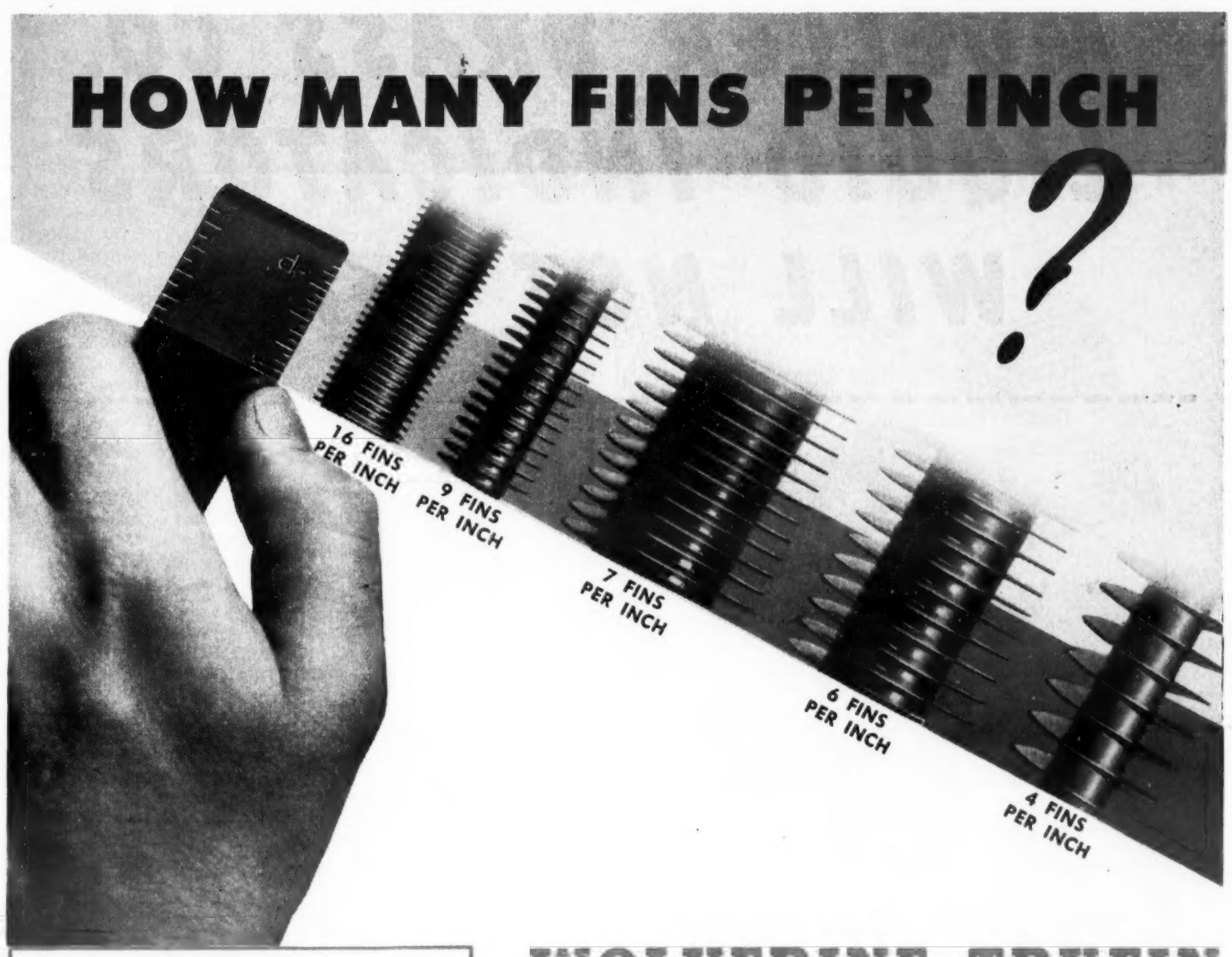
But on the other hand, Mr. Goldberg advised, the many young men now "gaining skilled preparations" in schools should not be regarded with suspicion.

"If you make the mistake of fearing them as possible competitors for the prestige which you have already gained . . .," he suggested, "you will gain nothing from their learning. But if you will accept them on a broad basis—accept their learning and make way for positions through which they will be able to work with you—you will acquire some new knowledge about refrigeration and coming new types of cooling which now are not as yet really being manufactured."

He said that most of the newcomers will want to tie themselves in with men of practical experience "because they recognize that the new things which they will learn at school are merely additions to the many things about refrigeration which you men have learned in your practical contacts with the jobs in the field."

Mr. Goldberg paid tribute to "the real worth and value of the refrigeration service man" which he said is again being proved "through the present drives to conserve food in this country in order that we might be able to ship as much as possible to the less fortunate people of other countries.

"Our nation at large is saving tremendous tonnage of food through use of our present refrigeration equipment," he said, "and your knowledge and work in keeping all of our equipment, large and small, in running condition surely is contributing to many thousands of saved lives in the starved, war-torn countries. We are proudly meeting this moral obligation."



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YEAH--HE BENDS YOUR EAR ALL DAY AND THEN EX-PECTS YOU TO STAY ALL NIGHT TO GET THE WORK OUT.
IT'S A WONDER HE EVER GOT A PAIR OF DOGS TO FIT HIM--OR A HAT, EITHER--
HE STARTED OUT WITH HOT DOGS AND NOW HE'S FULL OF BALONEY.
JIMMY HATLO 10-9
DRINKING IN EVERY WORD OF HIS NIBS SUCCESS STORY FOR THE 368TH TIME--THANX TO E F CROWE. DAYTON, OHIO.
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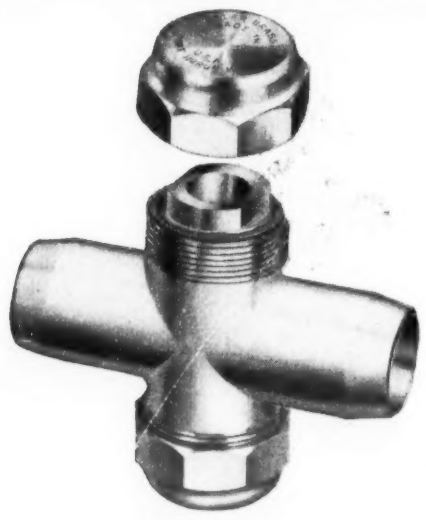
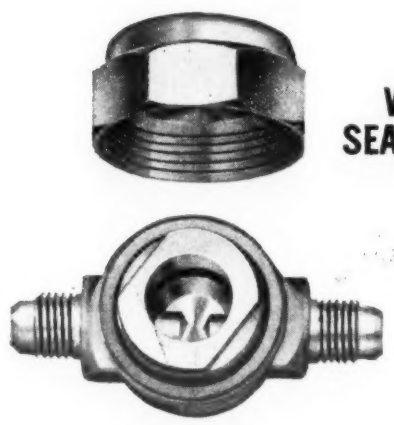
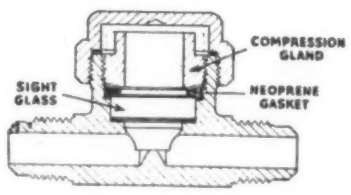


DOUBLE PORT LIQUID INDICATOR



WITH SEAL CAP



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Esau Was Hasty

AS the Bible tells it, Esau returned from his labors on the farm, hungry, tired, and in bad humor. He was so out-of-sorts with the world that everything and *everybody* who crossed his path displeased him.

To cap the climax, dinner wasn't on the table. That did it. Esau was sore as hell.

Losing his temper in a history-making manner, Esau "told off" his family, his servants, and all who came within range of his explosive epithets.

He wound up by selling his birthright for a mess of hot pottage.

Biblical history is now repeating itself. Too darned many of us are now trying to sell our inheritance for a pork chop, a home appliance dealership, or a pair of nylons.

We're tired, sore, hungry, and out-of-sorts. We've been that way for a long time. We don't like it, and we're crabby about the situation.

So when a "New Messiah" (like Walter Reuther, for example) arrives upon the scene, promising us all we want to eat and drink, a new home for every family, extra leisure to go fishing, a beautiful blonde on Saturday nights, and a new suit for Christmas, we go overboard . . . .

Every one of the "New Messiahs" promises us material blessings in exchange for our freedom. We can drown our sorrows by falling into an Ocean of Utter Dependency, if we will just follow these soap-boxers.

If we succumb to their honeyed promises (which they can't possibly make good) and make slaves of ourselves in return for a new shirt or an extra 18 cents in the paycheck, we'll go down in history as being the Greatest Fools of All Time.

We'll have lost all that men have dreamed, fought, and died for during the last century. We'll be right back in the Futile Age of Feudalism.

Huey Long almost did it. Mussolini came darned near doing it. Hitler came closest of all to doing it. Stalin might do it yet.

Do what? Why, enslave great chunks of freemen by playing upon the credulities of poor people. And most of us are relatively "poor"—because our desires always outrun our incomes and our capabilities.

At this point, let us quote a prophetic statement:

> "A dangerous ambition more often lurks behind the mask of zeal for the rights of the people . . . . than under the forbidding appearance of zeal for firmness and efficiency of Government.
>
> "History will teach us that the former has been found a much more certain road to the introduction of despotism than the latter, and that of those men who have overturned the liberties of republics, the greatest number have begun their careers by paying an obsequious court to the people; commencing demagogues and ending tyrants."
>
> James Madison
>
> THE FEDERALIST PAPERS, (No. 1) 1787.

Do the infrequent abuses of the American Free Enterprise System justify the scandalous notion that we must trade it in for a Slave-State Existence? Judging by the election returns, many too many "sheep" seem to think so.

The mighty Roman Empire disintegrated and collapsed because vote-seeking demagogues taught "the masses" to yell for an idle life and the dole ("bread and the Circus"). In all history, "liberal" reform movements have floundered on the rocks of fiscal economic policy.

Is America—the last great refuge of the Free Man—ready to become the dumbest Esau of all time?

Longer Storage Periods To Demand Higher Quality Frozen Foods, Claims Dr. Tressler

Food Expert Says Variety, Maturity, Freshness, Soil, and Climate Affect Food Preservation

SYRACUSE, N. Y.—Research on the freezing of precooked foods must be "pushed rapidly now" to forestall appearance of products incapable of withstanding the long storage periods an expanding business will require.

Such was the advice of Dr. Donald K. Tressler, nationally known food expert, to participants in the first annual meeting of the Frozen Food Foundation, Inc., held here recently. Dr. Tressler, who is a special food consultant to the Foundation, asked that information concerning the best methods of preparing and freezing precooked foods be made available to all.

"Thus far there has been relatively little difficulty with the quality of precooked foods on the market," he observed. "This is largely because the business has been principally of the 'hand to mouth' type. Products have been frozen one week and sold at retail the next.

"As the precooked frozen food business grows, products will be subjected to longer and longer storage periods. Then there will be many complaints about the quality of some of the products which have not stood up well during storage."

Dr. Tressler pointed out that the freezing of this type of food presents greater problems than that of other products.

"Freezing often causes the breaking of emulsions and the coagulation of many colloidal solutions," he explained. During storage fats and oils may oxidize, hydrolyze, and become rancid.

"Colors often fade. Some vitamins may be oxidized and otherwise changed. The foods often take on the stale flavors of left-over products."

Many of these problems have been solved by chemical and technological research, he said, adding:

"The accomplishments of a single year often seem insignificant, but looking back over the past 20 years we can see the enormous strides that have been made. The list of products, both raw and precooked, which can be satisfactorily frozen and stored for a considerable period is now very long."

But Dr. Tressler did not cofine his appeal for research to precooked foods. Invasion of the frozen food field by many companies without previous food-freezing experience makes imperative, he said, the widespread dissemination of accurate, detailed information concerning freezing processes and the establishment of quality standards for frozen foods of all kinds."

He cautioned that if frozen foods are to continue to find a ready market, their quality must be kept high. He predicted that "those which are found to be inferior to high grade canned foods will soon disappear from the market."

Although Dr. Tressler called for the cooperation of all elements of the industry in maintaining quality, he singled out the packer as the one bearing the greatest responsibility. He pointed out that there is nothing the warehouseman, broker, and retailer can do to improve a poor product if the packer "does not select high grade raw material and then prepare, package, and freeze it properly."

"Selection of high grade raw material is not simply a question of paying top prices for produce to be frozen or to be used in making products to be frozen," he elaborated. "Take the case of selecting vegetables for freezing as an example:

"Variety, maturity, freshness and the soil, weather and climatic conditions under which the vegetables are grown all have important effects on the quality of the frozen products.

"A variety unsuited for freezing will never make a good frozen product. Neither Alaska peas nor bountiful snap beans are suited for freezing. Stale vegetables, even of a variety which freezes well, are not satisfactory. They will lack flavor and are likely to be of poor texture.

"Overmature vegetables are sure to be starchy or woody. Vegetables grown under adverse soil, weather, or climatic conditions are not likely to be suited for freezing."

Noting the almost-equal importance of other processing steps, such as sorting, grading, washing, blanching, cooling, draining, packaging, and freezing, Dr. Tressler commented that too many frozen food packers are "inclined to emphasize the fact that their products are *quick* frozen. *Quick* freezing will not improve any product. Under ideal conditions it will only stop deterioration."

He called attention to the two remaining factors, uniformly low temperatures during storage, transportation, and display, and handling by the consumer:

"Poultry, fatty fish, corn on the cob, asparagus, peaches, apricots, and many precooked foods require temperatures lower than 0° F. if held for longer than six months."

Frozen Food Store Opens

ROCKFORD, Ill.—The Walter P. Beto & Co., Inc., has recently opened an exclusive Frozen Food Store here.

The store's location at 2042 North Second St. offers plenty of easily accessible parking space. Shoppers find a full selection of freshly frozen fruits, vegetables, meats, seafoods, Luick's Fro-Zest ice creams and sherbets, hand-squeezed California orange juice, etc.

The Walter P. Beto & Co., Inc., is also northern Illinois distributor of Booth's Frozen Foods, Luick's ice cream, and Bishop home freezers.

Survey Shows Average Restaurateur Would Buy $370 In Refrigeration

CHICAGO—It is estimated that if each restaurant owner in the country could buy the equipment he needs, he would spend an average of $370 on refrigeration equipment and $50 on small appliances, according to a survey of 1,010 eating establishments conducted by the National Restaurant Association.

Dishwashing machines, mixers, and cooking utensils can't be delivered yet, restaurateurs learned at a recent convention held at the Stevens hotel here, and refrigeration equipment will be hard to get all through 1946, they were told.

During the convention it was learned that restaurant men are enthusiastic about the new products they are now using and about others that have been promised them.

The experimental laboratory at one university reported to the convention that it is making excellent progress in quick freezing sliced, ripe tomatoes. When they get to market, the report said, they will be a time saver for the restaurant kitchen and a delight to the eater.

Quick freezing also is a big help in getting pies, muffins, and rolls ready long ahead of time, it is reported.

"It was possible for us to give our baker his regular day off during the war by having him get sufficient pastries ready ahead of time and put them in the freezer. Anyone could take them out and put them into the oven," one restaurant man said.

He urged others to try quick freezing their best dishes, such as Welsh rabbit or stuffed pork chops to encourage satisfied customers to take home a supply for later use.

The defrosting of frozen food has more of a headache for the restaurateur than for the homemaker, since food for restaurant use must be bought in packages as large as 50 pounds. Men at the convention expressed the hope that electronic devices would solve this dilemma for them soon.

Bess Replaces J. P. Walsh On Noma Board of Directors

NEW YORK CITY—John Bess has been elected to the board of directors of Noma Electric Corp. to replace Joseph P. Walsh, resigned.

Mr. Bess is president of Refrigeration Corp. of America and vice president of the Estate Stove Co., both wholly-owned Noma subsidiaries in the durable household goods field.

Complete Refrigerator Supply Distributes Pinocchio Line

NEW YORK CITY—The Complete Refrigerator Supply Co. is now distributor along the Eastern seaboard for the Pinocchio junior chill chest freezer and the De-Onna food saving bank, announces William J. Penachio.

The chill chest freezer, which is made by Revco, Inc., of Deerfield, Mich., has a 6.2-cu. ft. capacity and has a $260 OPA ceiling f.o.b. factory. Manufactured by the Quatman Co., of Lima, Ohio, the De-Onna food saving bank's 4-cu. ft. capacity is designed to match the household gas or electric stove unit, Mr. Penachio said. Ceiling on this model is $290 f.o.b. factory.

Gimbel's Pittsburgh Store Stresses Rush-Hour Convenience in Frozen Foods Department

PITTSBURGH — Express elevator at Gimbel's department store here opens on the "Frozen Foods Department," located alongside the Notions. The 18 ft. department is staffed by two clerks.

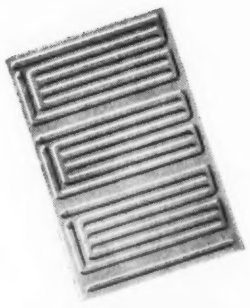
Department convenience during rush hours is paramount. Patrons enroute home can purchase a complete meal in a jiffy, walk outside and catch a passing trolley, eliminating a trip to the nearest grocery, which is usually at least three blocks away.

Green price list alphabetizes 37 items, including vegetables, fruits, ice cream cake roll, juices, dog food, cocoanut.

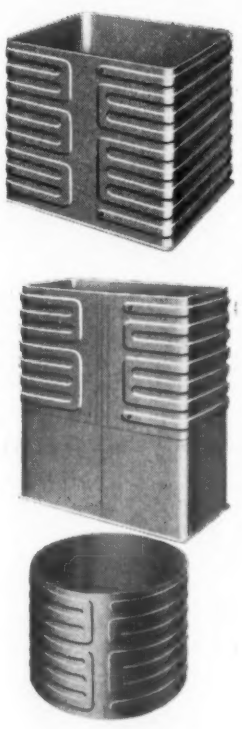
A copy of the price list, handy on a stand alongside the circular "wells," is available free to each customer.

ECONOMICAL PERFORMANCE

Stangard Prime Surface* Cold Plates . . . soundly engineered and precision manufactured . . . give the height of refrigerating efficiency at the lowest possible expenditure.



Low in first cost and trouble-free in operation, the economical performance of Stangard Prime Surface Cold Plates represent a worthwhile investment for locker plants, display cases, food counters, soda fountains, trucks, liquid coolers, ice cream cabinets, farm milk coolers, farm freeze cabinets, frosted food refrigerators, beverage coolers, rivet chillers and low temperature test rooms.



*No intermediate factor between refrigerant and contact surface.

THE STANGARD DICKERSON CORPORATION
46-76 Oliver Street • Newark, N. J.
Copyright 1945 by The Stangard-Dickerson Corp.

LITTLE "STAN," THE STANGARD MAN!

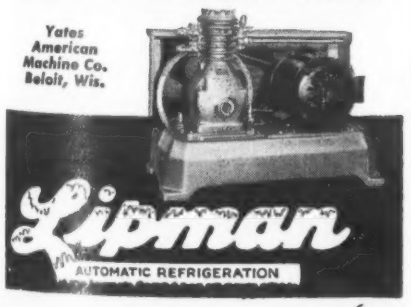
STANGARD PRIME SURFACE COLD PLATES

STANGARD KNOWS REFRIGERATION

Certified
BY A QUARTER CENTURY OF REFRIGERATION KNOW-HOW

Plan your automatic refrigeration installations for a triple advantage: Proved performance, low first cost, low maintenance cost. LIPMAN machines for dependable service in any field of commercial refrigeration are the result of more than a quarter century of manufacturing know-how. Let LIPMAN serve your needs profitably!

GENERAL REFRIGERATION DIVISION



SINCE 1939•••ZEROSAFE by WILSON

WILSON ZEROSAFE FARM FREEZER
Sectional Model FF-60

THE GREAT NAME IN FREEZER DESIGN

SINCE 1939 Wilson ZEROSAFE has been the greatest reach-in farm freezer in America . . . THE NEW WILSON ZEROSAFE IS NOW GREATER THAN EVER BEFORE . . . Not a toy, but big, ruggedly beautiful, efficient, with stamina for years of low-cost operation.

SIZES FOR EVERY NEED FROM 15 TO 120 CU. FT.

FOR FRANCHISE INFORMATION ADDRESS DEPT. II: WILSON REFRIGERATION, INC., SMYRNA, DELAWARE

Refrigeration Problems
And Their Solution

By P. B. Reed

For Service and Installation Engineers

Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

Service Chart For System Using Thermostatic Expansion Valve & Pressure Control

Symptoms	Possible Causes	Remedy
CONDENSING UNIT WILL NOT RUN.		
Evaporator frosted or at normal idle temperature, but refrigerator not cold enough. Suction line warm. Suction and discharge pressures normal for idle cycle. Pressure control open.	Air circulation in refrigerator blocked or restricted.	Remove restrictions to circulation, such as paper on shelves. Rearrange food. See that cold air and warm air ducts are open. Check fuses or bad electric connection.
	Evaporator fan not running.	
	Cut-out setting of control too high.	Reset pressure control to lower cut-out.
	Evaporator too small.	Replace evaporator with a larger one, or if this is impractical set pressure control cut-out lower.
Evaporator defrosted or warmer than normal for idle cycle, and refrigerator not cold enough. Suction line warm. Suction pressure high; discharge pressure normal. Pressure control closed.	Electric current off; line trouble.	Call power company.
	Main or branch circuit fuses blown due to short-circuit, ground fuses too small or fuses loose in clips, or overload resulting from tight compressor or motor, belt too tight or undervoltage.	Trace cause of fuses blowing and make necessary correction. Replace fuses with correct size.
	Loose or broken wire in main or branch circuit in control circuit or in motor.	Locate open circuit and make repair.
	Motor running but compressor not running; belt broken or pulley loose on shaft.	Replace belt with correct tension; check alignment. Replace shaft key or set screw.
	Contacts of pressure control burned and not making contact.	
Evaporator defrosted or warmer than normal for idle cycle and refrigerator not cold enough. Suction line warm. Suction pressure low; discharge pressure normal. Pressure control open.	Not enough refrigerant in the evaporator due to: strainer, dehydrator, valve, or fitting stopped or partially stopped, or tubing kinked.	Clean, repair, or replace the stopped parts.
	Power element of expansion valve "dead," having lost charge.	Replace power element or entire expansion valve.
	Space around refrigerator too cool; suction pressure does not rise to cut-in point.	Reset pressure control cut-in lower; may be necessary to change to temperature control.
Same as above except discharge pressure below normal.	System about out of refrigerant.	Find and repair leak and recharge with refrigerant.
	Condensing unit in too cool a location.	Replace pressure control with temperature control or special control.

An Open Letter To All Refrigeration Service Dealers

Subject: New Product for Crosley Dome Terminal Leaks

Gentlemen:

We wish to take this opportunity to introduce to the refrigeration service industry a new product (Reg. U. S. Pat. Off.) designed to stop Crosley Dome Terminal Leaks.

This new product acts as a positive sealing cap and is made of a new strong aluminum body having as its internal structure component parts specially designed with precision accuracy for the purpose of sealing leaking Dome Terminals.

Among the outstanding features of this new product are:

1 - Leak-proof sealing action.
2 - Simplicity of installation (installed without removing unit from cabinet).
3 - Adaptable to all hermetic sealed type Crosley units from 1937 to 1941.
4 - Chemically resistant construction.
5 - Installed by ordinary hand tool.
6 - Modern in design.
7 - Reasonably priced.

Production schedules will make these sealing caps available about May 1. Due to demand for this product we advise you to place your order now.

Very truly yours,
HOLL-INES DISTRIBUTING CO.
Dumont, New Jersey

PRICE SCALE: 1 Set (Complete Unit) $3.50 each.
(Special price for volume orders -- Please write for quotation.)

Sweden Freezer Mfg. Co. Opens Up New Showroom

NEW YORK CITY—A new showroom has recently been opened here by the Sweden Freezer Mfg. Co. of Seattle, maker of Sweden Speed Freezers. Located at 1553 Broadway, the showroom is under the direction of James W. Magee, of Sweden Freezer Sales Co. of New York.

Known as fountain freezers, the Sweden Speed Freezers are compact, self-contained, automatic machines especially designed for serving soft ice cream and frosted malts direct from the freezer. The freezers are supplied in single and multiple head units of 2, 4, or 10 qt. capacity. One model on display, said Mr. Magee will make over 20 gallons of ice cream per hour, has two one-gallon freezer heads, and requires 26 in. of fountain back-bar space.

West coast plant officials report that orders so far outnumber equipment deliveries that there is little hope of improvement before the summer of 1947.

Electrical Modernization Guide Issued By G-E Dept.

BRIDGEPORT, Conn.—A 20-page "Electrical Modernization Guide," designed to overcome the conception of electrical modernization as an inconvenient and expensive job, has been published by the General Electric Co.'s Appliance & Merchandise Department here.

Pointing out that in order to bring home wiring up-to-date it is first necessary to know what is wrong with the wiring—and why—the Guide concentrates on plans for improving the most inefficient parts of the wiring system.

Highlight of the booklet is a description of the add-a-circuit program for rewiring. This is a practical method of electrical modernization which provides adequate copper and plenty of convenience outlets in the electrical load area of the house—the kitchen, dining room, and laundry—with the least fuss at the lowest possible cost.

Modernization is also recommended for service entrance conductors and panels.

The compact Guide is well illustrated, includes a "What's Wrong With Your Wiring?" check list, diagrams of house wiring systems, a table summary of required outlets, and a table to be filled in by the home owner comparing his present wiring system with the wiring needed to bring the home electrically up-to-date.

Redondo Appliance Co. Starts

REDONDO BEACH, Calif.—Redondo Home Appliance Co. is the firm name under which Lester A. Shaffer has published a certificate that he is conducting business at 108 South Pacific Ave., Redondo Beach.

District Representative Holds Meetings To Brief Parts Suppliers' Staffs

DETROIT—Austin Jones, district manager for Kerotest Mfg. Co., met here recently with the entire staff of J. M. Oberc, Inc., wholesaler of refrigeration parts and supplies, in the first of a series of meetings he has instituted to help wholesalers' employes do a better job with his company's line of products.

First step in these meetings is a thorough review of the latest company catalog listing the line of refrigeration valves, fittings, and accessories. Changes in product design and construction are explained, and individual product features are pointed out.

Advantages of the "code" method in ordering and identifying products is then explained in detail.

Employes are encouraged to handle and inspect both finished and cutaway models of the company's products, and are encouraged to ask questions about the products.

Walton, Cooper Open Radio Appliance Shop in Affton

AFFTON, Mo.—The Walco Radio & Appliance Co. has been opened here at 8625 Gravois Blvd. The store, specializing in appliance service, and carrying six lines of home appliances, will be operated by partners George A. Walton and I. Cooper, both residents of Affton.

The former shop building in which the dealership is located will be turned into a complete service shop for refrigerators and appliances, while a new major appliance showroom will be built on a nearby lot.

A MASTERPIECE in Thirst-quenching Convenience

OASIS ELECTRIC WATER COOLER

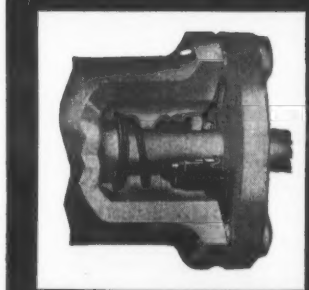
You're always *Sure* with an Oasis-built by Ebco, pioneers in the electric water cooler field.

The EBCO Mfg. Co.
401 W. Town St.
Columbus 16, Ohio

AMANA Commercial REFRIGERATION

MODERN
- FREEZER-COOLERS
- HOME FREEZERS from 5 to 123 cu. ft. food capacity
- COOLERS

Refrigeration Division
AMANA SOCIETY
AMANA, IOWA



ROTARY SEAL REPLACEMENT UNITS *for* Refrigerator Compressors

Available for Over 752 Models of Refrigerating Assemblies.

Rotary Seal has pioneered in the manufacture of mechanical shaft seals. Because of this specialization it offers the best in shaft sealing.

ROTARY SEAL COMPANY
2020 N. LARRABEE ST., CHICAGO 14, ILL.
Canadian Office: 382 Victoria Ave., Montreal 6, Canada

Use of 7 'Specialized' Walk-In Boxes Cuts Nebraska Hotel's Operating Costs By 5%

New Equipment Triples Catering Efficiency

LINCOLN, Neb. — Specialized refrigeration for different food storage jobs and concentration of refrigeration facilities on one level have been largely responsible for a 5% reduction in operating cost in the Hotel Cornhusker catering department, it is reported by A. L. Lew, resident manager.

Seven walk-in type refrigerators are used in the new arrangement, plus an ice machine which supplies all of the hotel's ice needs, and a separate air conditioning system for the food preparation and storage departments.

Importance of the savings effected may be judged from the fact that the hotel serves an average of 75,000 meals a month, and derives over 50% of its gross income from food sold in its coffee shop, pastry shop, taproom, and banquet hall. The Cornhusker helps to maintain its prestige as Lincoln's finest eating place by serving hard-to-get fish and seafood items, ordinarily not found in a city of Lincoln's size and location, and the special refrigeration for fish has made such service possible.

BALLROOM FLOOR RAISED

The remodeling project has been ingenious throughout, and one of the greatest bits of ingenuity, according to Mr. Lew, who planned the refrigeration layout, came from the hotel's architect, Ellery Davis. Mr. Davis conceived a plan to raise the ballroom floor 6 ft. to the main kitchen level and to excavate another 6 ft., providing a space 50 x 80 ft. and 12 ft. high, without acquiring additional land.

Refrigeration and food handling previously had been on two floor levels, with low temperature facilities limited to storage in ice cream freezers and deep-freeze boxes. The rearranging of equipment and addition of new equipment has increased efficiency in the catering department by 200 to 300%, Mr. Lew declared.

Five walk-in refrigerators were installed off the food storage room provided in the new sub-basement. Two of these are connected, the first being the meat box maintained at cold storage temperature for meats, poultry, and eggs. A large 0° F. room, which conveniently accommodates 1,000 to 1,500 pounds of meat, has been installed off the meat box, thus saving refrigeration and spillover. This arrangement eliminated use of freezers and ice cream containers. A walk-in dairy products refrigerator, and a walk-in vegetable refrigerator also open off the storage room where rough preparation of foods is done.

FIFTH BOX FOR FISH

The fifth walk-in refrigerator off the storage room is a fish box, maintained at 30° F. It has specially designed galvanized fish containers which can be conveniently iced and are mounted in a rack with a slight pitch. The containers have a small drain at one end, and the slight meltage that takes place drains off into a trough which leads directly to the sewer. This box has eliminated the usual problem of fish handling which in many establishments has to be put in refrigerated storage with the meats, Mr. Lew pointed out. A special sink for fish also is provided in the storage room.

Adjoining the storage room and adjacent to a newly installed freight elevator for foods is a walk-in refrigerator for garbage storage.

A seventh walk-in refrigerator is located in the new bake shop. This box also has smaller doors of the reach-in type on one side so that employes can reach in for pies and other pastries after bakery employes have gone off duty for the day. This system not only keeps the pastries in better condition but conserves on refrigeration, since less warm air is admitted to the box than would be the case if the walk-in door were opened.

In order to avoid food smells being carried into the hotel proper through the recirculating air conditioning system, a special air conditioning system was installed with a coil system and blowers, using all fresh air for the food departments.

All metal shelving and glazed tile are used for maximum sanitation, both in the refrigerators and other food departments. Fluorescent lighting is used throughout, with germicidal lamps in all refrigerators and storerooms.

A Carrier system refrigeration is used, with automatic temperature control in each box.

13 Fleischman Freezers Get OPA Ceiling Prices

BRONX, N. Y.—OPA approval has been given to Fleischman Freezer Co. to sell 13 models of frozen food cabinets at the following maximum prices in Order 406, MPR 591:

Model	On sales to— Distributors	Dealers	Consumers
520-A 20 cu. ft. ½ hp. unit	$335	$402	$670
520-A 20 cu. ft. no refrigeration	255	306	510
520-B 20 cu. ft. ½ hp. unit	322	387	644
520-B 20 cu. ft. no refrigeration	242	280	484
515-A 15 cu. ft. ⅛ hp. unit	270	324	540
515-A 15 cu. ft. no refrigeration	210	252	420
515-B 15 cu. ft. ⅛ hp. unit	260	312	520
515-B 15 cu. ft. no refrigeration	200	240	400
510-A 10 cu. ft. ¼ hp. unit	198	238	396
510-A 10 cu. ft. no refrigeration	148	178	296
510-B 10 cu. ft. ¼ hp. unit	193	232	306
510-B 10 cu. ft. no refrigeration	143	172	286
505 5 cu. ft. ⅓ hp. unit	145	174	290

Models designated by an A are equipped with sliding glass doors, being of the type used in frozen food centers, and Models B are the snap lid type of storage cabinets, it is reported.

Ryan Plumbing, Heating Named York Distributor

SYRACUSE, N. Y. — The Ryan Plumbing & Heating Co., Inc., of Syracuse and Watertown, N. Y., has been appointed as a distributor by York Corp.

Thomas Reynolds is president of the newly enfranchised distributing company, which will handle York's standard line of products including: air conditioning equipment up to 30 hp., refrigerating equipment up to 10 hp., Yorkaire units, FlakIce units, "Cold Well" water coolers, food freezers, and other commercial lines.

The two offices of Ryan Plumbing & Heating will serve most of the north central portion of New York state, with the Syracuse office covering Cayuga, Cortland, Onondaga, Oswego, and Seneca counties, and the Watertown office, Franklin, Jefferson, Lewis, and St. Lawrence counties.

Firm Handles Worthington Line

NATCHITOCHES, La. — Baker's has opened a new establishment at 204 Third St. here and will deal in air conditioning and refrigeration. The new firm will handle the Worthington line of refrigerating and air conditioning equipment. Tom Baker is the owner.

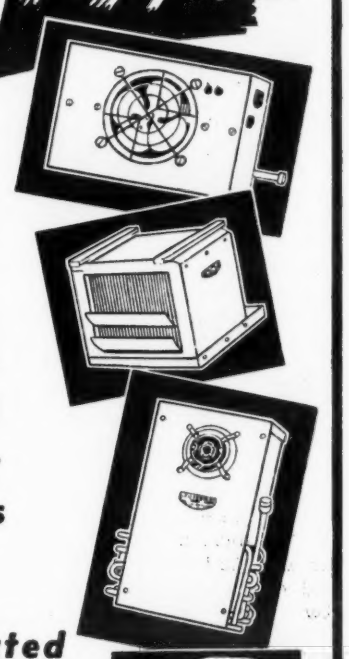
Turpin Gets O'B. Kennedy Post

DALLAS, Tex.—Edwin B. Turpin has been appointed manager of the service and installation department of the O'B. Kennedy Refrigeration Co., newly established firm here which distributes and installs refrigeration and air cooling equipment.

$100,000 Firm Incorporated

LINCOLN, Neb. — The Tegtmeier Electric Co. of Omaha has been incorporated in Nebraska with $100,000 capitalization. Incorporators are Harvey W. Tegtmeier and Raymond D. Pape. The company will deal in electrical appliances and supplies.

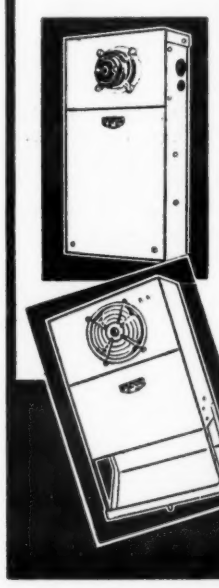
$105,000.00 AIN'T HAY!

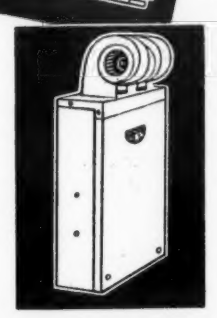


We spent in excess of $70,000.00 last year for additional equipment and facilities trying to keep up with the demand for Filterpure Cooling Units

AND

We have contracted for $35,000.00 more tools and machinery for delivery August 1 to further increase production.





Sold by Leading Refrigeration Wholesalers

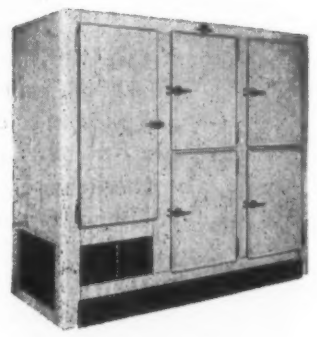
BETZ CORPORATION
HAMMOND, INDIANA

watch KOCH

get into mass production of advanced post-war refrigerators.

It pays to wait for worthy products. The two Koch factories are working full time now. One day, in the not too distant future, the huge back-log of orders will be cleaned up.

It will then be possible for Koch to serve some additional distributors.



KOCH refrigerators

ESTABLISHED 1883

NORTH KANSAS CITY 16, MISSOURI

Both in the same bracket!

THAWZONE
PATENTED
The PIONEER FLUID DEHYDRANT

...ACTIVE, ALWAYS CIRCULATING. DESTROYS MOISTURE CHEMICALLY, ECONOMICALLY, QUICKLY AND EFFECTIVELY.

TRACE
REFRIGERANT LEAK DETECTOR

...ITS STABLE AND VIVID RED COLOR REVEALS LEAKS.... INSTANTLY!

HIGHSIDE CHEMICALS CO.
195 VERONA AVE. NEWARK 4, N. J.

REFRIGERATION ACCESSORIES

- Instantaneous Water and Beverage Coolers.
- Oil Separators.
- Two Temperature Valves.
- Accumulator Heat Exchangers.
- Equalizer Tanks.
- Controlled Temperature Photographic Processing Units.
- X Ray Refrigerating Units.

TEMPRITE PRODUCTS CORPORATION
47 PIQUETTE AVENUE DETROIT 2, MICHIGAN

Michigan State College Offers Broader Air Conditioning, Refrigeration Courses

EAST LANSING, Mich.—A broad program of instruction in refrigeration and air conditioning, ranging from a short course of a few weeks to a full four-year course in engineering plus graduate work is being mapped out by the engineering school of Michigan State college here.

The school of engineering is headed by Prof. L. G. Miller, with D. J. Renwick directly in charge of the refrigeration program.

Included in a 36-week course on the general subject of "Farm Equipment Service & Sales" (now in session), is a section on refrigeration which runs about five weeks. The general course is intended to give students some basic preparation for employment in concerns selling and servicing farm machinery and equipment.

Refrigeration, air conditioning, heating, and ventilating are covered more thoroughly in two-year "terminal" courses, which will start next fall. These courses are designed to fit the need of the returning veteran or any student wishing a semi-technical education in the shorter time of two years as compared to four, the college points out. In addition to various technical subjects, basic literary courses are included.

"Students completing any of these two-year courses are considered to be prepared for employment as salesmen, operators, dealers, distributors, or eventual proprietors of their own businesses; or they might be repairmen or service men, or they could be employed by manufacturers as inspectors, laboratory technicians, office workers, etc.," explains Mr. Renwick.

"Instruction in refrigeration at the level of the short course and also the two-year terminal course will tend toward the practical side with some introductory theory, but with more study of equipment, its operation, and typical servicing procedures," he added.

"My personal immediate problem is equipment for laboratory instruction," said Mr. Renwick. "We have very little in the way of refrigeration equipment and tools now, but we have hopes that various manufacturers might consider us as sufficient means of advertising their products to be willing to donate us some items. I have written a few manufacturers and have received some quite encouraging replies.

"I could use wall charts, literature, cut-away models, or samples of regularly produced equipment, in working order or not, new or old, for instructional purposes. I intend to have exercises in the operation, taking apart, inspection, repair, and re-assembly of typical individual pieces of refrigeration equipment as well as completely assembled units in operating order."

The agricultural engineering department of the college is to have a new building which will include an extensive refrigeration laboratory, but is not expected to be completed for more than a year.

Cornelius Co. To Make Refrigerator Hardware

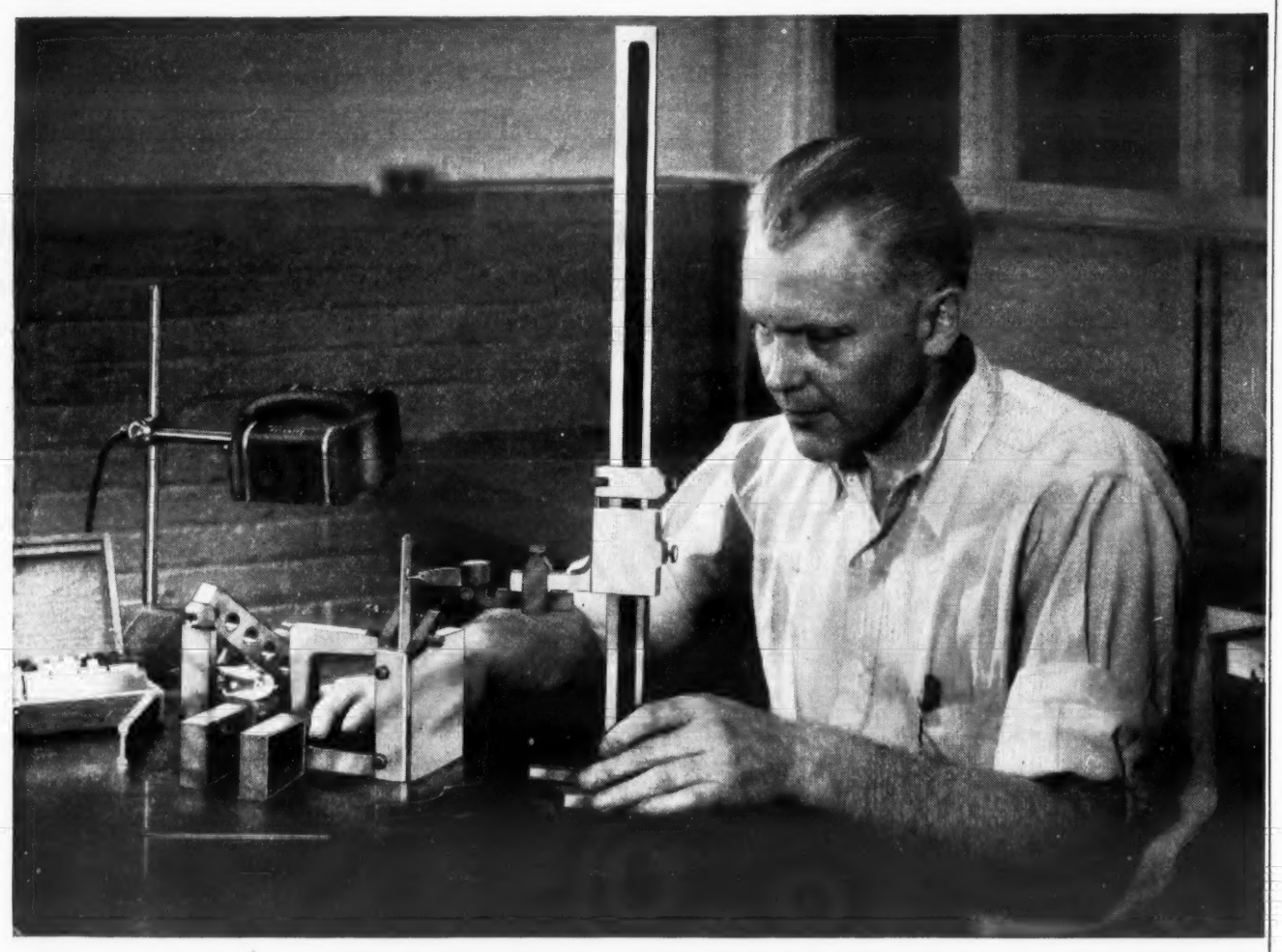
MINNEAPOLIS—Establishment of a Refrigerator Hardware division of the Cornelius Co. was announced by H. L. Stocking, vice president. C. J. Seiber, originator of Seiber Refrigerator Hardware, and for 20 years associated with the Arcade Mfg. Co., has been named to head the new division.

Among items scheduled for production by the firm are: hinges and locks for home freezers, cold storage doors, coolers, reach-in boxes, vegetable cases, meat cases, and beverage coolers, stated Mr. Stocking.

"Mr. Seiber's . . . experience in this field, coupled with Cornelius' engineering ability and manufacturing facilities, will assure an outstanding new line of quality refrigerator hardware," he declared. "The line will include many new items as well as long established standard items. Many of these . . . are being redesigned from the standpoint of appearance and functional utility."

Salem Engineering Co. Names 3 Locker Plant Distributors

SALEM, Ohio—The refrigeration division of the Salem Engineering Co. has announced the recent appointment of three new distributors for its Salem "automatic" locker plants. These concerns are C. F. Mohr Associates, Aurora, Ill.; Askew Lockers, Inc., Nashville, Tenn.; and the Earle E. Brown Organization, Los Angeles 27.



"Fault Finder!"

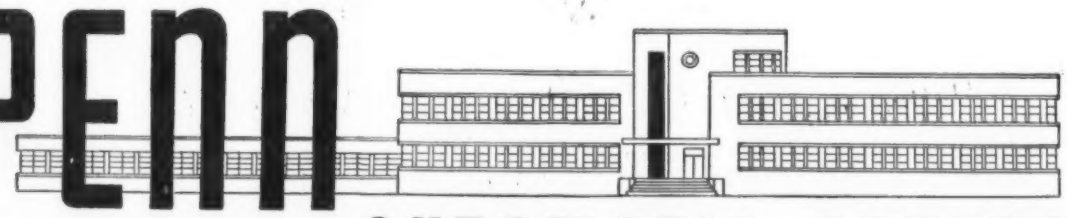
It's his *supercritical* attitude that makes this tool inspection engineer such a valuable PENN employee!

He is, of course, only one of many experts in Quality Control and inspection employed in PENN's modern factory . . . men who are paid to find fault . . . to assure you *the best controls that can be built.*

Here this engineer works with the finest commercial measuring or gauging devices obtainable. He inspects carefully a new part used in PENN Controls to determine not only the accuracy of the piece but also of the die from which it was made. To him the reputation of PENN Controls is a serious responsibility. Consequently, every control he tests must meet rigid specifications . . . or be discarded.

You may rest assured that these men who watch over PENN quality will always be unwilling to compromise . . . will always insist on PENN Refrigeration Controls being "right" before they leave the factory. Controls are available for temperatures as low as 150° F., and for pressures as low as 28" vacuum. Ask your jobber about them. *Penn Electric Switch Co., Goshen, Indiana.* Export Division: 13 E. 40th Street, New York 16, U.S.A. In Canada: Penn Controls, Ltd., Toronto, Ontario.

PENN



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

Servicing Commercial Refrigeration Systems

Instalment No. 7

Editor's Note: Four common ailments cause 95% of all service complaints on commercial refrigeration, and the repairman who knows how to determine quickly which one is the trouble-maker on a particular job will save himself a lot of time.

This series of illustrated articles, which was prepared through the cooperation of the service department of Frigidaire Division, General Motors Corp., outlines the steps to take in diagnosing and correcting complaints. Service calls resulting from the basic trouble of too high head pressure are outlined beginning with Instalment No. 7.

22—*Second Basic Cause of Most Commercial Complaints—Head Pressure Too High*

Head Pressure Too High can cause:

A. High operating cost.
B. Repeated motor trouble.
C. Belt trouble.
D. Improper defrosting (fixture too warm).
E. Fixture too cold.
F. Not enough capacity.
G. Water valve stays open.

The user complaint might again be that the power bill is high, or there might be repeated motor or belt trouble. The coil might not defrost between cycles, the cooler might be too cold, the water from a water cooler might be too warm, or the water valve on a condensing unit might stay open all the time.

23—*(A) High Operating Cost*

EFFECT OF HIGH HEAD PRESSURES
(FW5G Compressor at 70° Condensing Medium and 11° Evaporator)

Lbs. Head Pressure	B.t.u. Per Hour	Running Time (hours)	Wattage	Gallons Per Hour	Total Monthly Operating Cost
103	16,700	18	1,661	116	$36.25
130	15,100	20	1,820	131	45.51
148	14,300	21	1,905	139	50.10

Estimated from Engineering Manual:
Water at—$1.95 first 1,000 cu. ft.
— 1.20 per 1,000 cu. ft. for next 9,000 cu. ft.
— .90 per 1,000 cu. ft. all over 10,000 cu. ft.
Electricity at—Average of .03 per kw. hr.

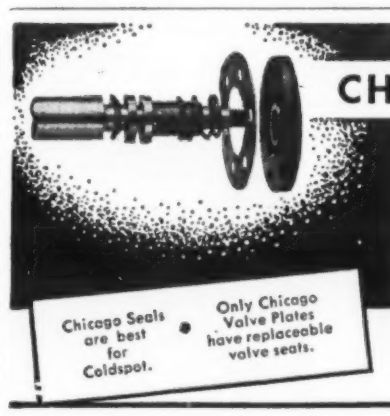
As shown, the higher the head pressure the higher the operating cost. For example, at 148 pounds head pressure the monthly operating cost is about 40% higher than at a normal pressure of 103 pounds.

High head pressure reduces capacity and increases running time. In addition, the wattage draw of the motor is almost 300 watts higher.

24—*(B) Repeated Motor Trouble*

Higher wattage may also lead to *repeated motor trouble*, because when a motor draws more than its recommended wattage, its temperature goes up.

Fuses and other devices are designed to protect the motor by shutting off the current when the wattage reaches a certain point. However, continued operation at a wattage slightly below this point may eventually cause motor failure.



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Text of Amendment Increasing Prices, Making Other Changes In OPA Refrigerator Order

Editor's Note: Amendment 9 to Maximum Price Regulation 598, which granted an 8% increase in manufacturers' prices of household mechanical refrigerators, (as reported in the April 22 issue of the NEWS) also made a number of other changes in the pricing order.

The following is the full text of Amendment 9. The order as originally issued was published in full as a supplement to the Oct. 29, 1945, issue of the NEWS.

The table for prices for the individual models of the various makes "has not yet been revised," OPA officials declare. This table is Appendix A to the order and the NEWS will publish it as soon as it is made available.

[MPR 598, Amdt. 9]

PART 1380—HOUSE AND SERVICE MACHINE INDUSTRY
POSTWAR HOUSEHOLD MECHANICAL REFRIGERATORS

A statement of the considerations involved in the issuance of this amendment issued simultaneously herewith has been filed with the Division of the Federal Register.

Maximum Price Regulation No. 598 is amended in the following respects:

1. Section 3 (c) is amended to read as follows:

(c) "Distributor" means any person who is not a "manufacturer" and who in the course of trade or business regularly buys completed refrigerators for resale to persons other than ultimate consumers.

2. Section 3 (d) is amended to read as follows:

(d) "Dealer" means a person who buys completed refrigerators and regularly resells them to ultimate consumers.

3. New sections 3 (h), 3 (i), 3 (j), 3 (k), and 3 (l) are added to read as follows:

(h) "Wholesale consumer" means a person who purchases refrigerators for use rather than for resale, but who is not an "ultimate consumer." The term "wholesale consumer" includes but is not limited to builders purchasing refrigerators for use in equipping homes or apartment houses which they are building, and apartment house owners or operators purchasing refrigerators for use by tenants in the purchaser's apartment houses.

(i) "Private brand" means any refrigerator not offered for sale as a manufacturer's regular brand, but manufactured for a particular person or persons, whether or not such person's name or brand name appears thereon.

j) "Private brand seller" means any person other than a manufacturer who sells refrigerators under a trade mark or brand name other than the manufacturer's and includes all subsidiaries, affiliates, branches, or other companies or enterprises under common ownership or control with such person.

(k) "Model" means any refrigerator which has the same specification as those of a particular refrigerator for which a ceiling price has been established.

(l) "OPA industry price increase" means the increase in a manufacturer's ceiling price for sales of a particular model of refrigerator to a particular class of purchaser permitted by section 5 (b) of this regulation.

4. Section 5, *Repricing by special order* is amended to read as follows:

SEC. 5. *Adjustment of manufacturers' ceiling prices*—(a) *Reconversion adjustments to individual companies pursuant to applications filed prior to November 11, 1945.* Refrigerators are a reconversion product for which adjustments in ceiling prices have been found by the Price Administrator to be warranted in accordance with the reconversion pricing policy embodied in Amendment 67 to Maximum Price Regulation No. 188 and approved for industries not subject to Maximum Price Regulation No. 188 by Directive 78 issued by the Office of Economic Stabilization. Accordingly, orders have been issued under this section, adjusting ceiling prices established by section 4, to reflect legal increases (over 1941 factory costs) in a manufacturer's material prices and basic wage rate schedules of factory workers between October 1, 1941 and November 10, 1945 together with a profit factor as determined by this Office equal to the manufacturer's own average net profit margin (before income taxes) for the period 1936-39, or one-half the industry average profit margin for that period, whichever is higher. In determining the amount of the adjustments authorized under this section the Office of Price Administration has acted on the basis of the cost information called for on OPA Form 663—2445 calculated in accordance with the instructions accompanying that form. Adjustments have been made under this section for manufacturers eligible to apply for an adjustment under Supplementary Order No. 119, and who applied for an adjustment under this section before November 11, 1945.

(b) *Industry reconversion adjustment of ceiling prices.* Unless directed otherwise by an order issued by the Office of Price Administration under this section, every manufacturer who, before April 18, 1946, has established ceiling prices for his sales of the refrigerators he manufactures under any section of this regulation or an order under this regulation, or who, after April 17, 1946, establishes his ceiling prices under Sections 7, 9, or 10 of this regulation, may increase his ceiling prices so established by 8% of each price, exclusive of the Federal excise tax and any charges for delivery, installation and warranty. Orders will be issued under this section denying a manufacturer permission to adjust his ceiling prices by all or part of this increase when it appears to the Price Administrator from information available to the Office of Price Administration, that the manufacturer has discontinued production of his low end model of refrigerator, or has decreased the proportion of low priced to high priced models which he manufactures so that his present or prospective production of refrigerators is not representative of his production in that respect of refrigerators during the year July 1, 1940 to June 30, 1941. The average price at which the manufacturer's production of refrigerators will be sold will be considered in determining how much, if any, of the increase will be granted to such a manufacturer.

5. Section 7 (a) (4) is amended to read as follows:

(4) He shall find his markup factor by dividing the ceiling price of the comparable model by its unit direct cost. He must use his ceiling price to the class of purchaser (distributors, dealers, mill order houses, etc.) which buys from him in the greatest volume. The ceiling price which he uses for this purpose shall be the ceiling price exclusive of the Federal excise tax, the OPA industry price increase, any adjustments under Revised Supplementary Order No. 119, and any charges for delivery, installation, and warranty.

6. Section 7 (a) (5) is amended to read as follows:

(5) He shall multiply the unit direct cost of the model being priced by that markup factor. The result is his ceiling price (exclusive of the Federal excise tax, the "OPA industry price increase," any adjustments under Revised Supplementary Order No. 119, and any charges for delivery, installation, and warranty) to the class of purchaser used in subparagraph (4). His ceiling prices to any other class of purchaser for the model being priced must be calculated on the basis of the percentage differential which he had in effect during the period October 1-15, 1941, for sales to that class of purchaser.

7. A new section 11a is added to read as follows:

SEC. 11a. *Manufacturer's ceiling prices for sales to wholesale consumers.* Unless an order issued under this section specifies otherwise, a manufacturer shall determine his ceiling price for sales of a particular refrigerator to a wholesale consumer as follows:

Step 1. He shall deduct from the OPA retail ceiling price established in appendix A of this regulation for the sale of the refrigerator to an ultimate consumer in the same zone, the amount included in that price to cover the Federal excise tax, delivery, installation, and the warranty given, and the OPA industry increase.

Step 2. He shall multiply the result of Step 1 by .825.

Step 3. He shall add to the result of Step 2 the applicable Federal excise tax and the amount deducted in Step 1 for delivery, installation, warranty and the OPA industry price increase. The result is his ceiling price for sales to wholesale consumers including delivery, installation, warranty and the Federal excise tax.

8. A new section 13a is added to read as follows:

SEC. 13a. *Distributors' ceiling prices for sales to wholesale consumers.* Unless an order issued under this section specifies otherwise, a distributor shall determine his ceiling price for sales of a particular refrigerator to wholesale consumers in the same manner as manufacturers determine their ceiling prices for sales to wholesale consumers under section 11a of this regulation.

9. Section 14 is amended to read as follows:

SEC. 14. *Distributors' ceiling prices for sales to dealers.* (a) A distributor who has determined his ceiling prices before April 18, 1946, for sales of a particular model of refrigerator to a particular class of purchasing dealer either under an order issued under section 13 of this regulation or under the provisions of section 14 may increase those ceiling prices by the dollar-and-cent amount of the manufacturer's OPA industry price increase and the resultant increase in the Federal excise tax.

(b) If a distributor's ceiling price for sales of a particular model of refrigerator to a particular class of purchasing dealer cannot be determined under paragraph (a) of this section or has not been established by an order issued under section 13 after April 17, 1946, he shall determine his ceiling price under the first applicable rule of the following:

Rule 1. A distributor's ceiling price for sales in each zone of each model to each class of purchasing dealer shall be the price which will yield the distributor the same percentage of the total dollar margin between the manufacturer's price to him (not exceeding the manufacturer's ceiling price to him) and the dealer's ceiling price for resales to ultimate consumers in that zone as he received on March 30, 1942, in connection with the sale of the most "comparable" model sold by him to the same class of purchasing dealers. To be "comparable," a model must be one produced by the same manufacturer.

Rule 2. If a distributor cannot determine his ceiling price for sales of a particular model to a particular class of purchasing dealers under Rule 1, his ceiling price for that sale is the ceiling price established under paragraph (a) or Rule 1 of this section for the same sale by the "closest seller of the same class" who has so determined a ceiling price. A distributor's "closest seller of the same class" is a distributor who (a) has established a ceiling price for sales of the identical model of refrigerator to the same class of purchasing dealer and (b) is the same general class of seller, and (c) is located in the same price zone and is nearer to the seller than any other seller who meets requirements (a) and (b) of this definition.

Rule 3. If a distributor cannot determine his ceiling price for sales of a particular model to a particular class of purchasing dealer under either paragraph (a) or Rules 1 or 2 of this section, his ceiling price for that sale is the ceiling price established by the Office of Price Administration in an order under this section. An application under this rule shall state the name and address of the applicant, the name of the manufacturer of the refrigerator being priced, its model designation, the classes of purchaser to whom the applicant proposes to sell the refrigerator, the ceiling prices he proposes for such sales, and a statement of the reasons why he cannot use the other rules in this section to fix his ceiling prices. Until ceiling prices are fixed for his sales under this regulation, a distributor who has applied for the establishment of his ceiling prices under this rule may not make sales or deliveries of any model covered by his application to the class of purchasers named therein.

10. Section 15 is amended to read as follows:

SEC. 15. *Dealers' ceiling prices*—(a) *Prices set forth in section 24, Appendix A.* Unless an order issued under paragraph (b) of this section specifies otherwise, a dealer's ceiling prices for sales of a particular model of refrigerator sold by the manufacturer after April 17, 1946, at prices adjusted under section 5 (b) is the applicable price set forth in Appendix A increased by either (1) the dollar-and-cent amount of the increase allowed the manufacturer by section 5 (b) in his ceiling price for sales of the same model to distributors (including the resulting increase in the Federal excise tax) if he customarily sells the model to distributors, or (2) the dollar-and-cent amount of the increase allowed the manufacturer by section (5) (b) in his ceiling price for sales of the same model to dealers (including the resulting increase in the Federal excise tax) he customarily sells the model directly to dealers. A dealer's ceiling price for sales of a particular model of refrigerator sold by the manufacturer prior to April 18, 1946, is the applicable price set forth in section 24, Appendix A.

Ceiling prices will be established for dealers' sales of models not listed in Appendix A or covered by an order under paragraph (b) of this section by amendment to Appendix A. Ceiling prices so established will be fixed in line with the level of retail ceiling prices established under this regulation. No refrigerator may be sold at retail unless a retail ceiling price has been established for its sale in accordance with this section.

(b) *Prices for private brands not listed in section 24, Appendix A.* A dealer's ceiling price for sales of any private brand refrigerator not listed in section 24, Appendix A of this regulation is the ceiling price authorized by the Office of Price Administration by an order issued under this paragraph for sales of the particular model in line with the level of retail ceiling prices established under this regulation.

An application for the establishment of a ceiling price of any model priced under this paragraph may be made by either the manufacturer of the model or the private brand seller selling the model. Applications under this paragraph shall contain the names of the manufacturer and private brand seller, the model designation of the model, a list of its major specifications, photograph or other illustrations of the model and the ceiling price proposed for sales of the model to ultimate consumers.

(c) *Credit charges.* (1) Dealers who during the period October 1-15, 1941, collected a separately stated additional charge for the extension of credit on sales of refrigerators, may collect a charge for the extension of credit under this regulation, not exceeding such charge during the period October 1-15, 1941, on a similar sale on similiar terms to the same class of purchaser. Dealers who did not so state and collect an additional charge, may collect a charge for the extension of credit only on installment plan sales; and the charge shall not exceed the separately stated additional charge for the extension of credit on a similar sale on similar terms to the same class of purchaser during the period October 1-15, 1941, by the dealer's closest competitor who made a separately stated charge.

An installment-plan sale as used in the above paragraph means a sale where the unpaid balance is to be paid in installments over a period of either (i) six weeks or more from the date of sale in the case of weekly installments, or (ii) eight weeks or more in the case of other than weekly installments.

(2) All charges for the extension of credit shall be quoted and stated separately. Any charge which is not quoted and stated separately or which otherwise does not conform to this subparagraph, shall, for the purposes of this regulation, be considered to be part of the price charged for the refrigerator sold.

(3) No dealer may require as a condition of sale that the consumer must buy on credit.

11. Section 17 is amended to read as follows:

SEC. 17. *Labeling.* (a) No person, except a mail order seller, covered by Order No. 7 under this regulation, may offer for sale, sell or deliver any refrigerator unless there is attached to the inside of the refrigerator where it can readily be seen and read, a label provided by the manufacturer which contains all the information required in paragraph (b) of this section.

(b) Unless an order under this regulation specifies otherwise, no manufacturer may ship any refrigerator covered by this regulation to a distributor or dealer unless there is securely attached to the inside of the refrigerator in a place where it can readily be seen and read, a label containing the OPA retail ceiling price or prices of the refrigerator, a description of the area in which each price is applicable, the brand name and model designation of the refrigerator, a statement of what the price includes as described in section 24, Appendix A, and a statement that the label may not be removed until after the refrigerator is delivered to an ultimate consumer.

(c) The manufacturer shall determine the retail ceiling price or prices for any refrigerator he sells in accordance with the provisions of sections 15 and 24 of this regulation.

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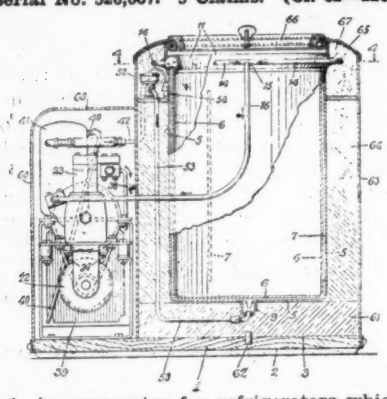
PATENTS

Week of April 9

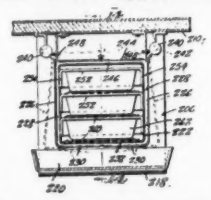
2,398,029. EVAPORATOR FOR REFRIGERATION. Willard L. Morrison, Lake Forest, Ill. Application March 11, 1944, Serial No. 526,007. 9 Claims. (Cl. 62—126.)



1. An evaporator for refrigerators which includes an outer cylinder having an integral bottom, an inner cylinder having an integral bottom, the inner cylinder and the outer cylinder being spaced apart to define a container for the refrigerant to be evaporated, the inner cylinder being open at the top, means for delivering a refrigerant to the space between the bottoms of the two cylinders at a point generally on the axis of said cylinders, means for withdrawing the evaporated refrigerant from the top of the space between the cylinders, including a hollow collector ring, the interior of which is in communication with the space between the cylinders substantially throughout the circumference of the ring, and integral spacing means for spacing said cylinders apart.

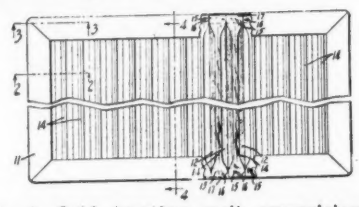
2,398,035. DEFROSTER. Marius L. Pacifico, Corning, N. Y. Application March 30, 1942, Serial No. 436,872. 4 Claims. (Cl. 62—126.)

1. In a refrigerator, the combination with an evaporator, of brackets located in vertical planes offset laterally with respect to the side walls of the evaporator, defrosting plates contacting with the side walls of the evaporator and having offset upper ends and provided at their lower ends with flanges contacting with the bottom of the evaporator, shafts rotatably mounted in the brackets, means rigidly securing the offset upper ends of the



plates to the shafts, means by which the shafts may be rotated to move the plates and their flanges out of contact with the evaporator, and means for releasably holding the shafts against accidental turning movement.

2,398,045. ZIG-ZAG FILTER CONSTRUCTION. Oliver H. Schaaf, Chagrin Falls, Ohio, assignor to Air-Maze Cor., Cleveland, Ohio, a corporation of Delaware. Application Feb. 1, 1943, Serial No. 474,311. 4 Claims. (Cl. 183—71.)



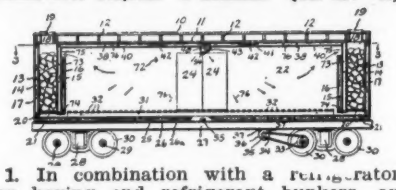
1. A fluid treating unit comprising a sheet of stiff screen material, said sheet having a series of zig-zag folds therein providing parallel ridges facing alternately in opposite directions, said screen material having spaced portions along said ridges spread laterally, said spread portions of adjacent ridges being in alinement, and means exerting a confining force at right angles to said ridges holding said spread portions in abutting non-over-lapping contact, whereby said zig-zag folds are held apart and properly spaced for the flow of fluid between them.

2,398,262. REFRIGERATING APPARATUS. Richard H. Swart, Royal Oak, Mich. Application March 20, 1944, Serial No. 527,267. 4 Claims. (Cl. 62—8.)

1. In a refrigerating apparatus of the compressor-condenser-evaporator type, the combination with a return conduit for conducting refrigerating medium from the evaporator to the compressor, of a double restrictor structure in an evapora-

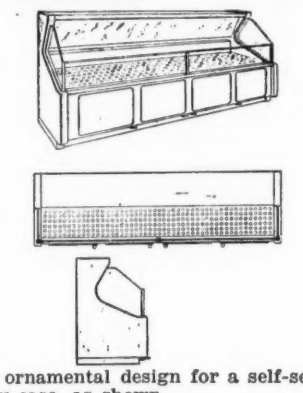
tor feed conduit for controlling the flow of refrigerating medium from the condenser to the evaporator and comprising a single length of open ended tubing having a cross section less than that of said feed conduit and extending throughout the major portion of its length lengthwise of and in thermal contact throughout substantially its entire length with the exterior of said return conduit, said tubing of less cross section forming a part of said feed conduit for conduc ing refrigerating medium from the condenser to the evaporator, and means for modifying the output of said tubing of less cross section including a valve at the outlet end of said tubing, and an actuating rod for said valve fixed to said tubing at the inlet end thereof, said rod and tubing being formed of materials having different thermal coefficients of expansion so that a differential in expansion and contraction of said elements is obtained under varying temperature conditions of said return conduit.

2,398,273. AIR CIRCULATING AND TEMPERATURE CONTROL DEVICE FOR REFRIGERATOR CARS. John R. Albers and Maurice M. Lasensky, Sioux City, Iowa, assignors to Wincharger Corp., Sioux City, Iowa, a corporation of Minnesota. Application June 29, 1942, Serial No. 448,998. 4 Claims. (Cl. 257—3.)



1. In combination with a refrigerator car having end refrigerant bunkers, an air duct communicating with said bunkers and positioned on the ceiling of the car, an air forcing unit attached substantially centrally to said duct to provide a double circulation in said car of air from the center of the car toward said bunkers, and thence through said bunkers and back through said duct to said center of said car, means for heating air within said duct, means responsive to predetermined temperatures in said car for operating said heating means, said duct including vertical end extensions passing downwardly to a lower part of said bunkers, said lower part of said bunkers being in communication with the floor portions of said car, electric circuit means for energizing said air forcing means and said heating means including an electric generator driven by the wheels of said car, and means for disconnecting said generator from said air forcing and heating means and for simultaneously connecting an outside circuit with said electric circuit by manual control when said car is stationary.

144,380. DESIGN FOR A SELF-SERVICE DISPLAY CASE. Cyrus F. Hoffman, Trenton, N. J., assignor to C. V. Hill & Co., Inc., Trenton, N. J., a corporation of New Jersey. Application Oct. 5, 1945, Serial No. 122,544. Term of patent 14 years. (Cl. D80—11.)



The ornamental design for a self-service display case, as shown.

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Pat. 2,355.915. FROZEN CONFECTION. Patented Aug. 15, 1944. A preformed edible tube closed at one end has an overlapping expansion joint disposed longitudinally therein which compensates for expansion caused by freezing after tubes have been filled and placed in refrigerator. Suitable racks may be provided during filling and freezing. (Owner) Kenneth L. Hayden, 48-10 Forty-third St., Woodside, L. I., N. Y. Group 20—24. Reg. No. 2,545.

Pat. 2,020.963. REFRIGERATOR COOLING TANK FOR DRINKING WATER. Patented Nov. 12, 1935. Tank of sanitary non-corrosive material for drinking water or other fluid is built in the inside panel of the door of a conventional refrigerator. Filler tube and faucet may be connected to tank to slide into and out of housings during opening and closing of door thus eliminating all inwardly extending projections when door is closed. Tank is invisible being covered by a sheet metal plate and does not materially add to bulk of door. (Owner) Robert H. Reid. 100 West 55th St., New York, N. Y. Group 35—84. Reg. No. 2,547.

Pat. 2,174,710. AIR HEATING AND CONDITIONING APPARATUS. Patented Oct. 3, 1939. This invention utilizes the available moisture produced by the consumption of manufactured gas in house and building heating for humidifying or air conditioning said structure. (Owner) Charles H. Wagner, 116 Jefferson Ave., Haddonfield, N. J. Group 35—84. Reg. No. 2,548.

Pat. 2,279.966. HUMIDIFIER. Patented April 14, 1942. Since a constant flow of water is maintained, the resultant insufficiency of evaporation prevents the formation on deposits making this humidifier especially adaptable to regions where "hard" water has a tendency to clog the spraying apparatus of air conditioning systems. Consists of an insulated casing housing a fan which draws air through a filter so that it may be passed over an exchanger coil (for heating or cooling) to a contact where it is humidified, before discharge, by an arrangement comprising a pivoted pan humidostatically controlled to by-pass the water constantly discharged from a spray pan to a wire mesh structure. Water caught in drain pan may be recycled a number of times. (Owner) Reginald W. Bulkley, 840 Westover Road, Kansas City 2, Mo. Group 35—84. Reg. No. 2,552.

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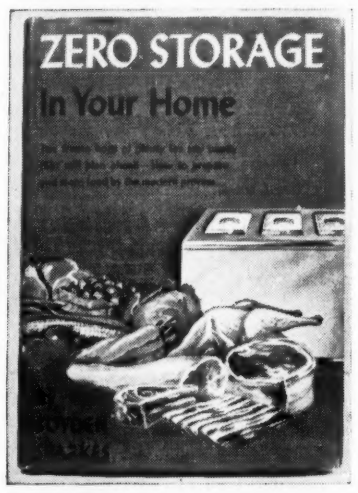

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YOUNG, ALERT, and aggressive man seeks position where experience and pleasant sales personality can be mutually beneficial to himself and employer. Eleven years practical experience all phases refrigeration—domestic, industrial, commercial; also air conditioning. Broad experience as application and field sales engineer; now commercial sales department head. Box 1972, Air Conditioning & Refrigeration News.

MANUFACTURER'S AGENT in Refrigeration, Heating, and Air Conditioning accessory equipment wants additional lines for the Los Angeles and Southern California territory. Box 1973, Air Conditioning & Refrigeration News.

SALES ENGINEER, college graduate, 41 years old, Christian. Fifteen years experience in Air Conditioning, Commercial Refrigeration, Domestic Refrigerators, and all types of appliances. Capable of installing and servicing. Desires position in or around Los Angeles. Traveled and worked in 25 Foreign countries for one of largest firms in America. Can furnish good references. Box 1974, Air Conditioning & Refrigeration News.

EXPERIENCED REFRIGERATION Sales Engineer with great dealer and distributor following and excellent personal contacts throughout New England is interested in representing manufacturer of refrigeration parts, commercial equipment, and package units. Box 1978, Air Conditioning & Refrigeration News.

VETERAN, graduate of Industrial Training Institute of Chicago in air conditioning, refrigeration and heating, desires further practical training in any of these lines. Salary and location secondary. Best of references. For further information, write Box 1981, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

YOUNG MAN with knowledge of refrigeration required for export sales department with leading exporter of air conditioning equipment. Knowledge languages and export business desirable but not essential. 5 days week. Apply 4th floor, 89 Broad St., New York 4, N. Y.

WANTED: Commercial Refrigerating Engineer capable assuming responsibility in design, production, and field contacts for manufacturer producing extensive line of open and sealed condensing units. Box 1975, Air Conditioning & Refrigeration News.

REFRIGERATION ENGINEERS wanted by midwest manufacturer of refrigeration control devices. Mechanical engineering graduates preferred. Expansion of facilities has provided openings in design and laboratory development. Ample opportunity for men of ability. Write describing training and past experience. Box 1976, Air Conditioning & Refrigeration News.

SALES ENGINEER: Refrigeration, Air Conditioning, and Heating. Experience required. Opportunity to develop into key position in expanding Chrysler Airtemp dealer organization. Detroit or vicinity resident. Address Box 1980, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WANTED—single cylinder compressor bodies with flywheels and shut-off valves in ⅛ or ¼ hp. capacity. Any quantities, 1 to 1,000. Wire, phone, or write. REFRIGERATION MAINTENANCE CORP., 321 E. Grand Ave., Chicago, Ill., Superior 4004.

EQUIPMENT FOR SALE

REACH-IN TYPE Freezers. Polished stainless steel finish throughout. 20, 55, 75 cu. ft. capacity. Streamlined-Selfcontain with units. Electric water coolers, beverage coolers, refrigerators remote and selfcontain. Walk-in coolers, ice cream cabinets, condensing units, blower coils, water tanks. Prompt delivery. AMERICAN COMMERCIAL EQUIPMENT CO., 4150 Holly Knoll, Los Angeles, Calif.

IMMEDIATE DELIVERY. Complete Carrier 20 ton cycle complete with water chiller, reheat coils, air washer, blowers, controls, etc. Used two seasons—In warehouse. 7½ ton GE condensing unit complete with coils, blowers, precipitron, etc., used two seasons. Can see equipment in warehouse. CONTROLDTEMP EQUIPMENT SALES CO., 236 Butler St., Brooklyn 17, N. Y.

FOR SALE: 10,000 new aluminum ice cube trays. Also air-cooled and water-cooled remanufactured condensing units ¼ up to 2 hp. Write for particulars. EDISON COOLING CORP., 310 East 149th St., Bronx 51, N. Y.

BEVERAGE COOLERS: 6 ft. capacity 22 cases; 8 ft. capacity 30 cases. These are dry coolers with heavy duty coils and one forced-air fan in 6 ft. model, two in 8 ft. model. Both have stainless steel doors and trim. Immediate delivery. GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12, N. Y., STuyvesant 9-1222.

Responsibilities of Company Controller Outlined by Cosgrove, Crosley Executive

Controller Must Guide Finance, Take Part In Management, and Keep Pace with Fiscal Laws

CINCINNATI — "The management of the typical large American industrial concern expects four specific things from the controller of the company," R. C. Cosgrove, vice president and general manager, manufacturing division, The Crosley Corp., told members of the Controllers' Institute of America at a meeting here.

"These things are: (1) absolute control over the financial operations within the company; (2) current knowledge of all pending or newly made laws which will affect the company profits in any way; (3) taking an active part in the overall management of the business; and (4) proper performance, organization, and administration of all functions within his department."

While the Controllers' Institute has set up the functions and responsibilities of the modern controller, Mr. Cosgrove pointed out that certain types of companies require specific services from their controllers.

"No company can exist in the highly competitive business in which we are engaged at Crosley without a very heavy and close hand on the funds that are available," he said. "Our products, which include radio in all its phases; household and other refrigerators; kitchen cabinets and sinks; laundry equipment; electric and gas ranges, and other products, are manufactured in a number of plants. Many items are purchased outside. Our products are distributed through many channels of distribution in this country and abroad, together with manufacturing activities abroad.

HELP ALLOCATE FUNDS

"The controller must help to determine how funds are to be spent and what is happening in their expenditure. To assist in this problem, budgets and appropriation accounting give management most of the cost control necessary.

"Our controller is expected to establish budgets for every possible expenditure and activity. He is expected to set up appropriation accounts which are workable, and these budgets and accounts must be religiously followed.

"Due to present-day hazards, workable budgets are difficult to establish. For example, it is difficult to establish a budget for our purchasing department, because it buys from several thousand suppliers, many of whose products are under government price ceilings, of which many have not yet been determined. Moreover, we are facing continually increasing labor rates and other increases and almost daily changes in costs."

Mr. Cosgrove declared that, in spite of these difficulties in establishing budgets, it is necessary to have them, with not only the best available information on the present existing situation but also on what the future situation is likely to be.

"It is essential that we have this information in order to plan intelligently," he said. "Budgets can be changed when changes occur in the facts.

"The controller for an organization of our type must consider each budget in relation to the overall company situation and, for that reason, must scrutinize carefully each budget submitted to him by the various departments and divisions and determine whether or not it falls in line with the program of the corporation as a whole.

"The controller should be familiar with any contract which carries financial commitments with it," Mr. Cosgrove added. "This does not mean that he must have a legal background, as most large companies employ adequate legal counsel, but the controller must be dollar-conscious. He must possess a broad knowledge of the entire business and he has, or should have, common horse sense, which, when used effectively, may mean the difference between a sound, reasonable contract and one that is not desirable."

Mr. Cosgrove pointed out that it is a responsibility of the controller to keep the managing head of the company informed on pending legislation and on any legislation that may affect the company's profits.

"It is not always possible for the head of a company to be adequately conversant with laws relating to taxes and finance and the controller should keep him informed on financial laws which have a bearing on profits.

CONTROL ADVERTISING COSTS

"The sales and promotional end of any business—and particularly our type of business—is a dramatic and often an emotional type of operation. Our advertising appropriations are large—more than a million dollars a year; our appetite for business is a big one; our management is commercially minded because we are in the consumer types of business; our commercial people are optimistic and have imagination. However, they need a controller to relate programs and plans to our ability to absorb the costs."

"In our engineering department, our research people and engineers are never satisfied, which we are thankful. It is their nature to be continually improving, developing, creating, and researching. At times, they need a fairly heavy hand to relate the many activities of their department to the realities of getting the costs back.

"Here again, we depend upon the controller who must be, at the same time, both conservative but also liberal and imaginative, with a thorough understanding of our business.

"Due to the nature of his activities, the controller must be more familiar with all operations of the business than any other individual except the general manager," Mr. Cosgrove asserted. "He must use tact and he must be sure of his facts in working with the various departments and groups. He must be a selfless type of individual operating always in the interest of the company."

Mr. Cosgrove added that the controller is held responsible for the efficient operation of all activities falling under the head of office management.

"He must be a good judge of men," Mr. Cosgrove said, "and must exercise discernment in the selection of key personnel, each of whom must be a potential controller."

W.L. Davis To Establish New Advertising Policy At Airo Supply Co.

CHICAGO—W. L. Davis has been appointed advertising manager for Airo Supply Co. here, it has been announced by General Manager Leo Keeley.

He will establish a new sales and promotion policy for the refrigeration equipment supply house, Mr. Keeley stated.

During the war Mr. Davis was associated with the Ordnance Department, compiling various catalogs of ordnance material. Prior to the war he was a member of the advertising department of one of the large optical supply firms.

ASHVE Purchases Property In Cleveland To Augment Research Facilities

NEW YORK CITY—The American Society of Heating & Ventilating Engineers has purchased property at 7218 Euclid Ave., Cleveland, to provide adequate research facilities for serving the entire heating, ventilating, and air conditioning industry as well as the associated industries, according to the announcement of Alfred J. Offner, president.

The move to the new home for the Society's Research Laboratory became effective April 1.

The property consists of a substantial dwelling with a large two-story brick auditorium type building attached. Its location on one of Cleveland's main traffic arteries makes the laboratory accessible from the center of the city and from east side railroad stations.

The brick building, which is 58 ft. x 125 ft. on its foundation houses the Laboratory proper. At grade level are three large rooms with 11 ft. ceilings and numerous small service rooms totaling about 5,300 sq. ft. which provide excellent research, workshop, and storage facilities. The only basement space is that provided for the heating plant.

The second floor of the laboratory, which is of unusually heavy reinforced concrete construction, provides 4,600 sq. ft. of floor space completely free of any obstruction with an 18 ft. head room. Here will be located the psychrometric rooms to be used in studies on human comfort, radiant heating, and radiant cooling. This space is also particularly well adapted for studies in air flow and air distribution.

To the rear of the laboratory is a large unshaded area 85 ft. wide and over 300 ft. long where equipment for the study of solar radiation and associated problems will be erected in the future.

The three story dwelling provides office space for the staff; Cyril Tasker, Director of Research, is in charge. He is assisted by C. M. Humphreys, senior engineer; H. B. Nottage; G. V. Parmelee; Dr. A. D. Brandt, assigned to the Society's Laboratory by the U. S. Public Health Service and a group composed of research assistants, technicians, and clerical aids.

Straus-Frank Remodels Store To Add 10,000 sq. ft. Of Space

SAN ANTONIO, Tex.—Work has been started on an expansion and remodeling program by the Straus-Frank Co., wholesaler of major appliances, which is designed to provide 10,000 sq. ft. additional floor space. In addition, the store front and the interior will be remodeled and new fixtures and equipment installed.

A one-story annex is being erected immediately adjacent to the present building and this will be utilized as a display department with an aisle extending through the center and with attractive displays along both sides. In addition there will be display booths where salesmen may demonstrate appliances.

Oklahoma Firm Starts

ARDMORE, Okla.—The Main Furniture Co. has opened for business at 111 East Main St., Ardmore, with a complete line of furniture and electrical and gas appliances.

Food Conservators
Is Our Only Business
All our energy and resources are devoted to their development and production. Write for particulars.
Master Manufacturing Corp.
121 Main St. Sioux City 4, Iowa
800,000
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Canadian
Refrigeration Journal
The only publication servicing the industry in Canada
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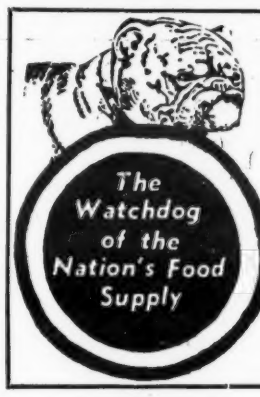
Exceptional design. Hot tin dipped welded steel construction with copper end connections (steel in F.P.T. sizes). Negligible pressure drop. Large screen area with easily removable screen. Light weight. Oil trapping prevented by installing on side or in vertical position.
ASK YOUR JOBBER FOR IT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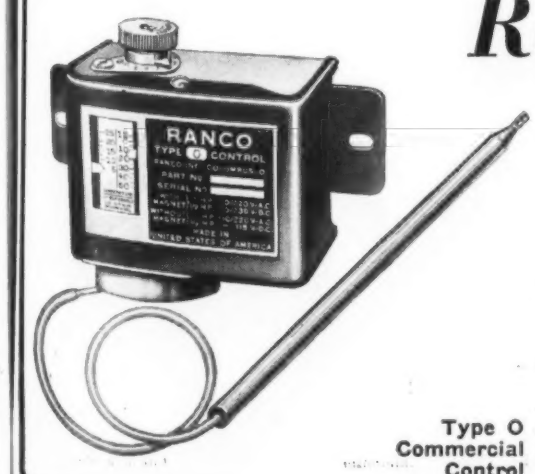

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For profits, install Ranco controls. See your jobber or write direct.
Type O Commercial Control
Ranco Inc.
COLUMBUS 1, OHIO

Steel--

(Concluded from Page 1, Column 5)

of the work stoppage will also have a serious effect on services of utilities and railroads, he said.

Benjamin F. Fairless, president of the U. S. Steel Corp., declared last week that his company's largest Pittsburgh subsidiary had reduced operations to 26% of capacity, while plants in the Chicago district were down to 40%.

Production of steel in Birmingham, Ala., has likewise dropped, being at 63% of capacity last week.

While not of major importance, since it is confined to only about 5% of total steel producers, the limiting of steel shipments to nearby points may add some more difficulties to manufacturers.

The cause of this trouble is the "basing-point" system combined with the OPA squeeze on prices, say steel men. Basing points have been established throughout the country so that a steel producer in Pittsburgh, for example, who ships to a Chicago buyer will have to absorb freight charges since Chicago is a basing point, if he wants to compete with mills in Chicago or Gary, Ind.

Only the small mills who operate on a very slim margin are affected, say steel men.

Dealers--

(Concluded from Page 1, Column 4)

mestic electric customers, it was found these utilities' territories accounted for 30,240 dealers in 1941. In 1945, these same areas had 29,300 dealers for a four year mortality rate of only 3.1%.

The estimated number of dealers for these territories in 1946 is 42,196, which represents an increase of 44% over the 1945 figures and a 40% increase over the 1941 or prewar figure. These figures show definitely that the industry has an abundance of experienced dealers who have learned how to merchandise in good as well as in poor years. They will fight hard to maintain their sales position in their respective communities.

"Scarcity of raw materials at the present time causes an uneven flow of finished products to reach dealers in only extremely small quantities which is resulting in an increased hardship to the newcomer.

"The efficient service departments of established dealers are an asset. They served their customers well during the war years and have good sources for replacement parts. It will require time and money for the new dealer to make known to the community in which he plans to serve that his service department is manned by experts, has good equipment, and does good repair work.

"In the days and months ahead, when production tempo is stepped up considerably, more and more merchandise reaches all dealers' shelves and real selling is the order of the day, there will be keen competition for each customer's dollar. The older and more experienced dealer will have the inside track, knows from the past how to go about the plus sales which so often spell the difference between a profitable and losing dealer operation, whether to add or trim his sales sails."

Two-Stage Unit--

(Concluded from Page 1, Column 4)

he said, and these will include a ⅓-hp. two-stage unit for "F-12" and "F-22" and single stage units of ½ and ¾-hp. capacities.

Associated with T. G. Crider in the company is H. A. Crider, Sr., who will be vice president and secretary-treasurer. The latter was formerly with the Lima Securities Co. and Lima Locomotive Works.

T. G. Crider has long been an executive in the refrigeration and allied industries. Prior to joining Carrier, he had been chief engineer in charge of production structures with Woodall Industries, Inc.; chief engineer of Modern Equipment Corp.; and development engineer with Universal Cooler Corp.

4 Nebraska Construction Jobs Using Refrigeration Approved by CPA; 2 Food Plants Near Completion

OMAHA, Neb.—Four new building projects involving refrigeration system installations and refrigerator retailers have been approved by the Civilian Production Administration for Nebraska, while two large food processing plants utilizing major refrigeration installations are nearing completion.

Dr. Richard Geisler has been given the go-ahead signal for a $35,000 frozen food locker plant at 3201 N. 63rd St. here.

The Nebraska Certified Potato Growers Association has been given similar approval for a $30,000 concrete storage building utilizing air conditioning, at Scottsbluff, Neb.

Lloyd W. Reynolds received CPA approval to erect an $8,000 ice cream manufacturing plant at Maple Street and Saddle road, Omaha, while the Bellevue Appliance Co., electrical appliance dealer, was approved for a $5,000 retail and service shop at Bellevue.

At Fremont, C. A. Swanson & Sons, largest cold storage company in Nebraska, with headquarters at Omaha, is completing a large plant for processing and storage of poultry and eggs, to employ 250 persons. Babendure & Sons is building a new poultry and egg processing plant in Fremont to be ready for operation about Aug. 1.

Washington Predicts No Changes in Regulation 'W'

WASHINGTON, D. C.—Regulation W, controlling instalment sales terms, will probably undergo no revisions before the end of the year, it was predicted here last week.

The revisions at that time may not affect terms on refrigerators and other durable goods, it was said.

Servel Corp. Nets $254,884

EVANSVILLE, Ind.—A net income of $254,884 after charges and taxes, has been reported by Servel, Inc. for the 12 months ended Jan. 31, 1946. This figure is equal to $4.25 on the 60,000 shares of $4.50 preferred stock. Net sales for the period totaled $38,937,562.

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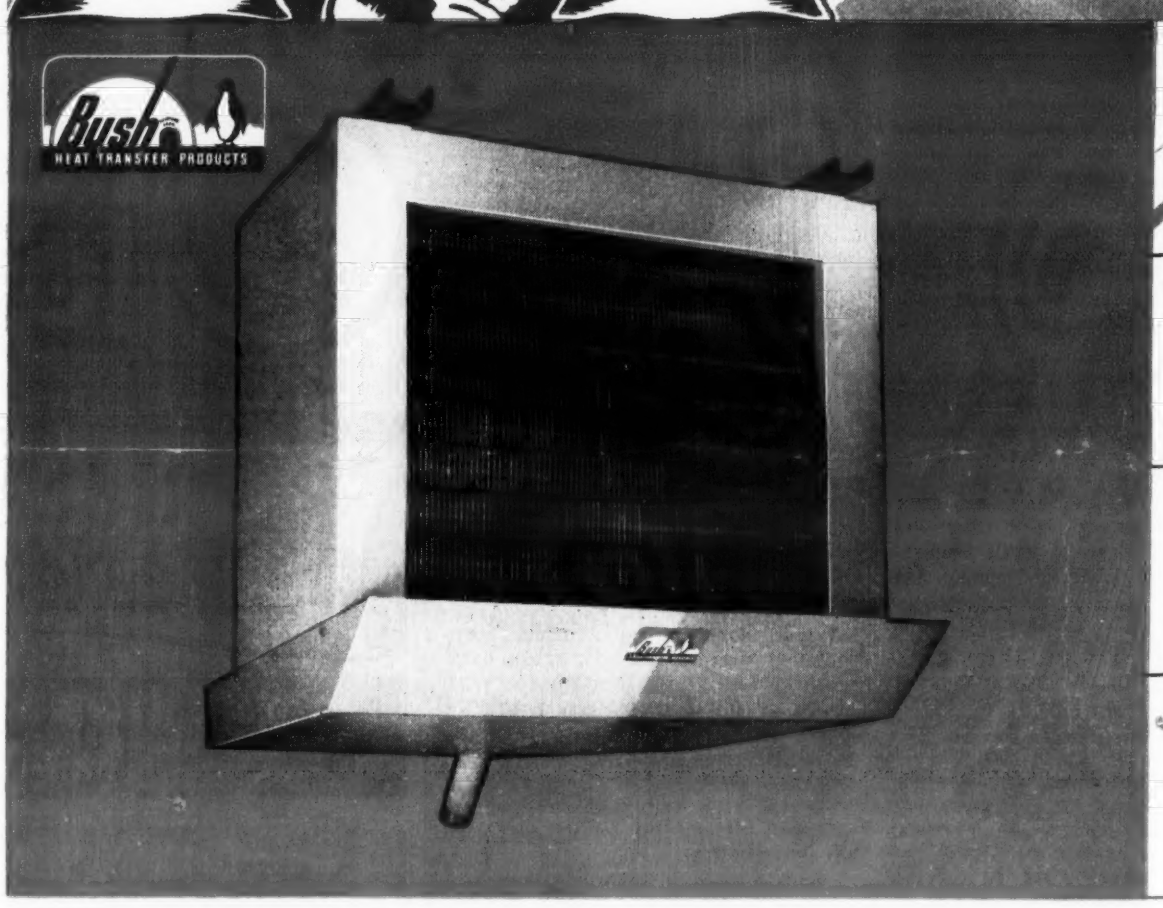

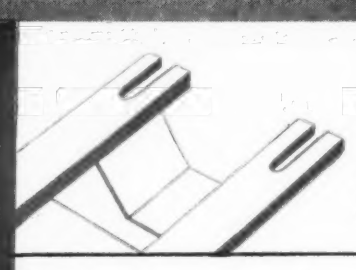

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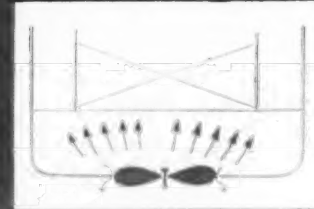
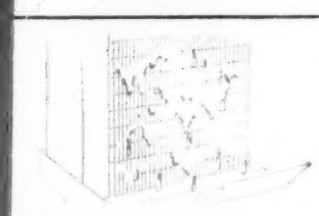


DEEP PLENUM CHAMBER — An outstanding BUSH feature engineered for best distribution of moving air thru core of cooling unit



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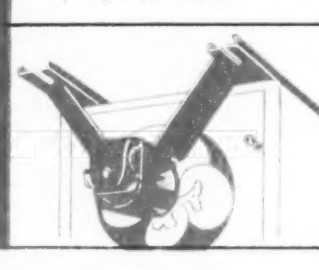

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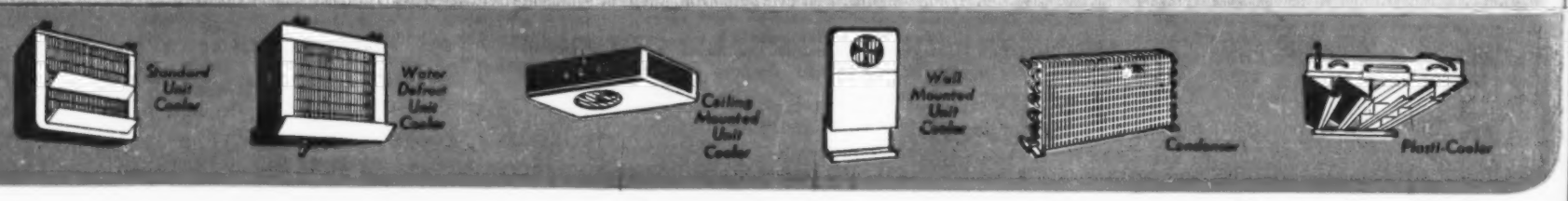

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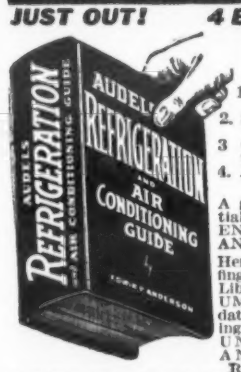

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